

# Career Development in India

*Theory, Research, and Development*



Swadesh Mohan

*Editor*



The kind of textual material required for developing an insight into framing counselling strategies for helping the person-in-the-career-planning process is totally lacking in our Indian literature. The present book is devoted to meeting resource needs of this nature. It provides a thorough acquaintance with the nature of career psychology and theoretical viewpoints on what career development consists of.

The book also provides an understanding of the personological and social processes related to individual's career planning. Available Indian research evidence has been incorporated into topics such as career maturity, career patterns etc. helpful in designing interventions. Substantial research evidence, specially generated for this volume in relation to pre-entry and post-entry career behaviour of employed and self-employed Indian men and women has been presented.

The book contains a gender-neutral perspective and other necessary inputs to understanding and dealing with discriminatory aspects of women's career development.

The volume ends with a critique on research needs and practical suggestions for exploring, building and adapting career development models in Indian situation.

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# **Career Development in India**

## **Theory, Research, and Development**

Editorial Board



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## **Theory, Research, and Development**

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SWADESH MOHAN

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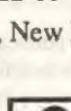
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## **FOREWORD**

---

The behavioural scientists' endeavours towards unravelling the complexities of human behaviour have yielded unlimited information and diverse varieties of expositions on important dimensions of interest. The present era is particularly open to multi-disciplinary, cross-cultural, and cross-sectional emphases on generating such knowledge and using it for effective management of behaviour. Career scientists abroad, with their grounding in psychology, sociology, and occupationology, have made a visible headway in regard to providing a knowledge base in career psychology. It has been shown variously that having a 'career' is functioning as a 'human' in its entirety and vice versa. Together, the two give rise to a life-style. It is surely the task of the social scientists, then, to develop a complete understanding of career development process and have whatever perfection is attainable in this discipline of career psychology including theoretical models of career behaviour.

The present book provides information on career psychology constructs, principles, and applications. An effort has been made towards highlighting the Indian traditions, philosophy, and socio-cultural situation as they influence an individual's work ethics and motives, and work values.

Looking at the various chapters, I am led to believe that in view of what comprises career development of individuals and specified sections of the Indian society, and the type of database required to have a complete understanding of the Indian dynamics of career behaviour, it is a little premature and preposterous to cover our needs for theoretical formulations. However, the western knowledge may be used as a starting point for arriving at modified and indigenous versions of career

theories in India. It is, therefore, only fair to make use of the database available for various professional, academic, and research needs for taking up adaptations.

There is also, in my opinion, a need for a great deal of national level interdepartmental policy planning and joint action to provide for our youth the ways and means to get exposed and develop skills in self-understanding and occupational information to assimilate them in their self-concept through a gradual process of learning at various educational stages leading to a meaningful entry into careers.

The contents of this volume have spanned a large variety of topics of concern to career psychologists and counsellors. The current issues of importance such as gender disparities and other anomalies in educational provisions, and the need for taking up research to formulate strategies for career psychology and career counselling practice in India have been dealt with, too.

It is a matter of great happiness that Dr. (Mrs.) Swadesh Mohan has come up with this book of readings containing contributions by eminent experts in the field, as well as many chapters of her own. The book is rich in academic information and research findings on Indian aspects of this virgin field of career theory in India. I congratulate her on bringing out the present volume which has filled a significant knowledge gap in Indian literature. Prof. M.K. Raina, Head of the Department of Educational Psychology and Foundations of Education, deserves appreciation for his professional commitment, encouragement, and support in enabling Dr. Mohan to make this publication a reality.

A.K. SHARMA  
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## PREFACE

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In complex societies with ample opportunities for people to exercise options for their life-work, attempts have been made towards developing an understanding of this dynamic process of career decision-making. In this task, divergent philosophical orientations have exerted their influence and a variety of fragments of career behaviour studied has been manifested. Nevertheless, a number of well spelt-out approaches and models of career behaviour and development have made their appearance on the Western scene. The idea for the present Handbook arose out of the need to have such a volume with an Indian component. The main purpose of this book is to provide textual and resource material for the education and training of counsellors and other guidance functionaries. The specific objectives envisaged to be fulfilled are: (1) to develop a general understanding of the specialized discipline of Career Psychology; (2) to provide thorough acquaintance with various approaches in career theory; (3) to emphasize the role of Indian socio-cultural situations in shaping careers; (4) to enable the readers to adopt/adapt career theories in career counselling situations; and (5) to enable them to generate research ideas and evolve more culturally valid models of career development.

Down the ages, career choice and entry was a sociological event, decided at birth due to caste and the work based division of our society. Phenomenal social and industrial changes have taken place in recent years to provide both a variety of options for each individual and a variety of roles in each occupation. In this diversity of work fabric, there is sufficient scope and reason to have rational placement of individuals. In the West, a humanitarian concern regarding helping individuals enter suitable careers was first voiced by Frank Parsons in

Boston, U.S.A., as early as at the turn of this century. Parsons was able to influence educators to provide vocational guidance services. The first ever theoretical basis to provide these services, known as 'Trait and Factor Theory' (Parsons 1909) was suggested by him, which led to a "true-reasoning" dictum of choice-making. A number of other viewpoints on the process of entry into careers followed in the next few decades. The early models had suggested using information about occupations (Occupationalogy) and information about individuals (Differential Psychology) to "match" individual with job. Later, with the advent of personality theory and clinical emphasis on the role of one's job in life, the underlying psychological and social dynamics assumed significance in career theory. Career psychologists, then, came to realize the shortcomings of the straitjacket matching of individual with the job and recognized the place of growth processes within the individual as also the importance of social context. Further, influences of personality and learning theory gave rise to a proliferation of theories and models, some of them lending themselves more to research and practice than others.

In this volume, an attempt has been made to take up fundamental aspects of career theory at a conceptual level, as also deal with the important orientations and approaches available in literature to promote understanding of these theories, with special reference to Indian situations. Research evidence, wherever available, has been incorporated.

The volume consists of twelve chapters which cover introductory, theoretical, practical, and research aspects of career theory. 'Work' is so intricately woven into one's life-career that a complete chapter is devoted to an understanding of work, with special reference to the Indian conception of work in a philosophical perspective. Chapter 1 elucidates the nature of work and various viewpoints on the meaning of work. Some sections are devoted to the way persons are motivated to work because of various kinds of work ethics and values in Indian and other societies. Chapter 2 gives, at length, an introduction to career theory, its historical roots, and various developments in Western countries as well as in India in the field of career psychology. Counselling implications of using theories and models of career choice and development have been brought out. There is an attempt in Chapter

3 to build up an Indian context to serve as a backdrop to interpretation of various elements of career theories in general. Tracing the history of careers in India to various kinds of influences, the author has gone on to presenting the roles of social structures of family, education, and work along with factual information and statistics.

Theories are understood to be enhancing counsellor confidence in his/her professional practice and adding credibility to his/her work with clients. The prominent theories have been covered in Chapter 4. They have Western origin, no doubt, but most of them are amenable to cultural adaptation due to an inbuilt flexibility wherever such factors are involved. The chapter ends with a more inclusive and recent model using the concept of "Career Consciousness" among persons and the role of counsellor in creating this career consciousness. Using the construct of "Career Maturity", the career psychologists have also been able to make an assessment of the extent to which individuals, at given life stages, may be assigned to various points on the continuum of life-span development. Many psychometric tools for such assessment have made their appearance and found a legitimate place in this discipline of career psychology. Indian versions are sometimes available, too. Chapter 5 gives an exhaustive treatment to this topic of career maturity, touching upon its concept, bases, dimensions, assessment techniques, and factors influencing it. Chapter 6 entitled "Career Adjustment" is a further extension of the continuum of career development once the individual embarks upon a career. It deals with the important aspect of work adjustment as viewed from subjective and external criteria taken as satisfaction and success. This topic assumes significance in so far as counsellors need to assist the clients form a future perspective of their entry into the world of work. Chapter 7 largely provides a sociological account of the patterns of job movement as they relate to the family's socio-economic position and other socio-psychological factors. Available Indian studies on career patterns have been included.

Chapter 8 deviates from the preceding ones. In this chapter are reported findings of a small research study conducted on Indian men and women who had been employed at the time of this investigation. A sample of over 300 persons was used to yield information on pre-entry and post-entry variables usually covered under career behaviour and adjustment to arrive at an understanding of Indian population on these

variables. The chapter contains, at the end, some conclusive findings in a summary form.

Chapter 9 entitled "Career Development of Women" is a special area of concern in the present scenario. The chapter provides special insights into the role of gender-role-stereotypes in women's career concerns, the emphasis on gender in various theories, and the methods of dealing with this issue of gender disparities in gender roles. Chapter 10 is more informative in nature. It has been included in this largely theoretical text with the purpose of facilitating understanding of the role of the world of work in one's career planning. The chapter based on a life-time association with occupational classification systems the world over, has provided an exhaustive account of the "Industrial and Occupational Structure" of our country.

A volume which is not futuristic may lose its value. It was, therefore, regarded imperative to include a chapter on research needs and suggestions in favour of evolving an indigenous career counselling model. Chapter 11 is, thus, research oriented. The chapter emphasizes the need for research in career development and career counselling with concrete suggestions on ability research and occupations research, etc. Chapter 12 is more conclusive in nature. It focusses on various parameters of evaluation of theories discussed in preceding chapters and their specific implications for theory building. There is emphasis on important aspects of evolving a career theory in the Indian set up and the need for taking into account the diversity of our social scene. A plan of action which may be handy in launching projects on theory-building has been suggested.

**Swadesh Mohan**

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## Chapter 1

# NATURE OF WORK

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"No one can remain even for a moment without doing work; everyone is made to act helplessly by the impulses born of nature (Bhagwad Gita, 3.5).

Work has been central to all human activity since the beginning of civilization. It is a natural and inherently significant aspect of survival and development of mankind, as much as other inborn tendencies. Work is bio-socio-psychological in nature. Most work is purposive; it is undertaken to realize big and small, immediate and long-term goals in life such as meeting basic life requirements, higher order needs of self-expression, and other motives and aspirations one learns to value in society. Besides its value to the individual, work is also institutionalized. It is the major vehicle of development of societies and is instrumental in differentiating one society from the other on socio-cultural and economic dimensions of growth. While some types of work skills and enterprises are universally relevant and valuable, others may be more typical of the cultures and ecological conditions. Nevertheless, various natural resources available in different parts of the country have the potential of utilizing and nurturing a large variety of human resources and skills, and correspondingly that of generating a rich employment potential.

Social and economic activity has now become mutually complementary across various kinds of boundaries as a result of greater

communication facilities and through a process of industrial expansion and interdependence of industries and enterprises. In most of today's affluent societies, the varieties of work enterprises are also seen in both organized and unorganized ways at local, national, and international levels. In this work scenario, work has meant different things to different persons and organizations. At personal levels, the subjective elements of work activity and outcomes are valued more. The organizations, on the other hand, strive more towards the social outcomes of work and other global concerns. Understanding the nature and meaning of work, thus, becomes a concern of various disciplines of knowledge. When work is linked to study of occupations, vocations, and careers, it becomes a subject-matter of occupational sociology and career psychology and is directly related to the welfare and well-being of individuals in a society.

Besides being biological, socio-psychological, and economic activity, work is also understood in a philosophical perspective in different societies. In the following sections some of these view points have been dealt with.

### **The Indian Conception of Work**

Work is 'Karma' (Pali Kāmma), action, or deed in the Indian way of life. The Indian conception of work derives its meaning and substance basically from the social and moral philosophy and the world-view represented in our scriptures and other records of socio political developments. Philosophy in India has been greatly concerned with the need to explain the nature of reality in absolute terms as well as in relation to social and moral aspects of man's existence, and his obligations towards maintaining law and order in society. It also passes injunctions towards men and women and their own well-being. Moral order is supposed to govern the universe and the moral action is supposed to be governing the attitudes and behaviour of persons. The well-being of the individuals is said to be pursued through four *purusarthas* which are fundamental concepts depicting the ultimate goals of human life. The four-fold classification of *purusarthas* is *dharma* (rightful living), *artha* (material possessions and prosperity), *Kama* (pleasure), and *mokṣa* (liberation), concurrent with various times and stages of human life known as *asramas*. Traditionally, 'Varna',

'Asrama' and 'Puruṣartha' constituted three basic facets of the Indian way of life. Varna has been distinguished from *jatti* (caste) which is considered hereditary and is divided into hundreds of exclusive groups, but which initially forbade the intermixing of castes. Bowes (1982) concedes that castes have arisen out of the inter-marriages of four varnas. Varnas were, then, not exclusive as is considered today. They were not hereditary; instead they were a work-based classification of society. The support to the 'Varna' concept as a work-based classification also comes from the *Bhagwad Gita* (4.13) where the author says that the fourfold castes are based upon the different *Gunas* and *Karmas* and that one is not given a caste just because of the accident of his birth.

In the transcendental dualism of Samkhya philosophy, activity is generated due to dispositions and tendencies inherent in Prakrti which is the prius of the whole material and psychical order of phenomena. Prakrti is the assemblage of three kinds of dispositions and tendencies (*Gunas*), also called *Vāsanās* viz; *sattva*, *rajas*, and *tamas*. These three elements are by their nature opposite to each other but stay in a state of equilibrium prior to evolution. Among these three gunas, *sattva* (integrity) is primarily responsible for self-maintenance and self-manifestation of Prakrti. *Rajas* (dynamism) is the cause of all activity, and *tamas* (inertia) is responsible for restraint of activity. These three gunas become manifest along with their capacities of cognition, activity, and substance characterizing them respectively.

The Yoga system of Samkhya-Yoga provides ethical, physical, and mental exercises which help man in realizing the goal of transcending the Prakrti i.e. attaining a mastery over Prakrti and realizing himself as Purusa (Self) as detached from Prakrti. Action here becomes subservient to the true nature of the self.

In the Yogic thought, a distinction has been made between four classes of human action: white or virtuous (*śukla*), black or wicked (*krṣṇa*), white and black (*śukla-krṣṇa*) and neither white nor black (*asukla-akrṣṇa*). All actions except those of the last variety bear fruits in retribution as all these are backed by desire. On having attained the ultimate knowledge, man ceases to perform all actions other than those of the last kind and is thus liberated from the cycle of *Karma* and its retribution. Further, in the moral order governing the universe, the Law

of Karma is guiding the actions of man. According to Varma (1990), the theory of *Karma* is the first significant attempt in the history of human speculation to explain a man's destiny in terms of his own personal endeavours. There is a stress on one's own efforts to ensure the path to moral purification and personal illumination. It is an individualistic theory and exhorts the individuals themselves to feel responsible for consequences of what they do. The ethical formulation of the Law of Karma is briefly stated as follows :

"Good deeds invariably produce good results and bad actions produce bad results. The results of action are, first, happiness and suffering, and second, they are impressions or tendencies (*Samskāras*) or *Vāsanās*. The latter become the invisible forces or energies that shape the future life of persons. There is also the law of transmigration seen in the cycle of births and deaths. The present life of a person is the fruition of his past actions (*adṛṣṭa*) and there will be a future life after this life comes to an end. This is called *Samsara*. The person can liberate himself from Samsara if he removes the ignorance (*avidyā*), the root cause of all action. Ignorance can be removed by wisdom (*vidyā*). It cannot be removed by action, since every action reproduces further reactions of tendencies that further strengthen the enforcement of the Law of Karma.

Some of the sociological approaches to tracing the origin and development of the Theory of Karma have also stressed the underpinnings of the ethical Law of Karma. Varma (1990) gives three divergent views of this nature. *Firstly*, there is the notion of the primitive tribes regarding personality of the ghost ancestors and the potency of certain sacred actions and formulae in bringing about intended consequences even after the death of the performer. According to the *second* view, which is more politically based, 'Karma' is an out-growth of the process of expansion and territorial settlements of some tribes, particularly the *Aryans* in some regions of India. This social and political reality presented the necessity to maintain the existence of various kingdoms and law and order through required political efforts. The process of constant strife and the action to ward off its influences seemed to fall in line with the emphasis on actions in the moral and religious world, as the political Pundits came from the same social order which valued the scriptural emphasis on

Karma in the moral world. The *third* view originates from the belief about the role of such sociological factors as the existence of social and intellectual conflict between the Brahmins and the Kshatriyas which, according to Western indologist Richard Garbe, was also reflected in the philosophical world-view of the Upanishads. Garbe holds that in opposition to the conservative Brahmanical system and the views about theology, the Kshatriyas formulated the ethical Law of Karma and added it to the Upanishads. This view is, according to Varma (1990), open to criticism as the Law of Karma has been regarded as having Vedic origin which was further developed by the Upnishads and which subsequently acquired immense significance.

The *theistic* concept of Karma has been most significantly developed by the author of the Bhagwad Gita. In verses 3.3 to 3.5 life is equated with work, but work is action with renunciation of desire for results. Work performed without desire is a disciplined activity which sets the path to Yoga. Work is as much duty as a path to emancipation from the cycle of births and rebirths. Hence a man attains neither freedom nor renunciation from work. While life remains, action is unavoidable. True non-action is removal of egoism in performing an action. The goodwill, the willing fulfillment of the purpose of good is all that should matter. Swami Chinmayananda (1982) emphasizes the socialistic and altruistic dimensions of work as advocated by the Gita (3.5). According to his interpretation, we can either act to the detriment of ourselves and for the disaster of all around us or we can act to bless ourselves, and bring at least a ray of smile on the faces of all others around us in the world. Gita, thus, calls for national reconstruction and rebuilding of human society through work performed in the spirit of *Yagnā* (dedication). This spirit of *Yagnā* is a source of peace and joy. The egoless attitude enables the self as pure consciousness to be freed of all desires (*Vāsanās*). In such a person the noblest of activities manifest themselves.

Further, in Bhagwad Gita, *Karma* (effort) is one of the five factors involved in the accomplishment of any act which are: *adhisthana* or the basic or centre (i.e. the physical body) from which we work, *kartr* or doer (i.e. the phenomenal ego), *karna* or the instrumentation of nature, *cesta* or effort (i.e. the vital energies within the body), and *daiva* or fate (i.e. the non-human factor) that disposes off human effort (Gita, 18.14).

Hence Karma is not destiny but a condition in the process of accomplishment. We are, therefore, asked to control our impulses and regulate our conduct by reference to budhi or understanding, as otherwise, we will become the victims of "Lust which is the enemy of man on earth". (Gita 3.37). According to Radhakrishnan (1969), the Gita recommends the "full active life of man in the inner world with the inner life anchored in Eternal Spirit." It is, therefore, a mandate for action. Without work life cannot be sustained. But the superior person is one who undertakes *Karma-Yoga*, the yogin who acts but without attachment to the results. The importance of doing one's duty efficiently (3.9) and one delineated according to one's *Varna* is stressed in order to maintain social order. The destruction of families and society would take place if persons did not perform action expected of them. Each individual has his inborn nature, *Svabhava*, and to make it effective in his life is his duty, *Svadharma*. The activities are distinguished in accordance with the qualities born of their nature (Gita, 18.41). If each individual does what is appropriate to him, if he follows the law of his being, his *Svadharma*, then God would express Himself in the free volitions of human beings. All that is essential for the world will be done without a conflict.

The spiritual connotation attributed to 'Karma' in the framework of Indian philosophy and religion has been recently challenged by Daya Krishna (1991). He questions the established relationship between moral action and *mokṣa*. The latter, according to him, belongs not to spiritual but practical philosophy. It is an ideal to be achieved just as other values and goals prescribed for mankind. Karma is not only a means of *mokṣa* but is instrumental in realization of other values and ideals. *Mokṣa* he says is more talked about in the context of knowledge of what truth is and is closer to the true nature of the self. *Mokṣa*, then is not the ultimate goal of all moral action.

The relevance of work in life is also propagated by Acharya Mahapragya, the present Head of the Anuvrat Peace Foundation in India. In his holistic approach to life, he speaks about education and discipline as essential preoccupations to deal with difficulties arising in domestic life. Work is perceived by him as a way of disciplining one's life. He draws a distinction between 'work' and 'efficient work.' The essential components of efficient work are : experimentation and

practice (*Abhyas*), decision-making ability (*Nirnaya Shakti*), concentration (*Ekagrata*), emotional stability (*Samvega Santulan*), effort (*Karmagyata*) and creativity (*Sarjnatmakta*). He also emphasises the need to practise and develop these components to such an extent that they become essential tendencies and dispositions (*Samskāras*) in a person and become his/her second nature.

In the Western world, too, concepts of work running parallel in connotation to the traditional Indian ones are available. In the Western tradition, there have been multiple and conflicting levels of worth assigned to work. There were myths about work being the job of the lowly, a "curse" or the fate of the eternally damned. Subsequent to the Protestant Reformation, the "Protestant Work Ethics" emphasized the importance of work as a device for assuaging the guilt and the misery of experiences associated with work, particularly with the kind of work that the older tradition branded as inherently symbolic of a low level of human value. In contrast to this debasing notion of work, the reformatory ideas of Protestantism advocated the nobility and inherent worth of work for man. Work came to be regarded as a "calling" and as a means of spiritual salvation and mental peace. Martin Luther believed that all work was God's work, that all work was important. Idleness was negative experience. In a similar vein, John Calvin who believed in the predestination of men's and women's souls, propounded the thesis that if men and women worked hard, showed self-effort, and produced "best" work, for them it was possible that salvation would be forthcoming. According to both Martin Luther and John Calvin, people should work and those who work are to be praised and those who do not are to be condemned. Any work is better than idleness or no work at all. These religious ideas provided people urgent motivation to work. Calvin's thesis about successful work experiences has been later reflected during the past few decades in societal pressures on individuals to attain materialistic success to be called a social success; one's career or job became an instrument to earn acceptance, prestige, and income.

Over the centuries, with the increasing industrialization and ensuing social changes, work ethics have also changed world-wide to accommodate and to seek variety, complexity, and personally oriented performance requirements of work. Work is now more secular and

work ethics more tolerant of caste and class differences. In our country, formerly 'Varna'-related work obligations have now become obsolete. The sense of contentment in doing one's duty for duty's sake which, in some way amounted to 'Nishkam Karma' and selfless work as a moral and social obligation is not personally and socially too relevant any more. Individuals now evaluate and choose work on humanistic dimensions which are more intrinsically motivating and personally satisfying, as Lee and Kanungo (1984) have also observed in this context that a shift from "individuals' seeking fulfillment through traditional roles in the social structure to individuals' seeking fulfillment through highly idiosyncratic and personalized life styles and relationships have taken place". Work is now more liberated from a sense of "alienation from work". Work ethics now include furtherence of growth of man integrated with the totality of life experience to improve the quality of life.

### **Meaning of Work**

Concern about work and its meaning in this age of affluence combined with cross-cultural influences permeates various disciplines of study. Of particular interest here are the psychological and the social contexts and the work life as it relates to the total living. Questions like 'What is work?' 'What does work consist of ?' need to be answered to explicitly state the mechanism of man's relationship to work. Work has been differentiated from play, from reflex actions, and from purposeless voluntary movement. Human work is partly analogous to physical work in as much as it involves force in action to effect a chang in the object worked on. Webster's International (3rd Ed) defines work as "Exertion of strength or faculties for the accomplishment of something; physical or mental effort directed to an end." Further, work according to Webster, is some sort of active process through which one object or entity influences another, although the activities described are not always carried on by human beings, or even by living beings. In physics, work involves flow of energy from one body or system to another to effect a change or alteration. The more the resistance, the more rigorous is the work activity to effect the change.

Psychological conceptions of work included the earliest interpretations of advanced classical psycho-analysts like Freud and his

followers, and neo-Freudians. Freud's evaluation of the role of work in man's life is consistent with his general view of adult human functioning. Freud sees adult human behaviour as the outcome of a long struggle between the parents and the child, where the child tries to find modes of behaviour which, on the one hand, satisfy the parental demands revealed in their efforts directed at socializing the child, and, on the other, focus on retention of some pleasures of instinctual gratification. Work for Freud involves "renunciation of the instincts" and is ruled by "reality principle" rather than "pleasure principle". It is not intrinsically satisfying. Freud (1962) speaks about a sense of adequacy found in work. Work for him is man's link with reality through which he sublimates his biological drives and plays out many of his conscious and unconscious hopes, dreams, and aspirations.

In sharp contrast to Freud's classical ego theory with a faith in the role of instincts is Erikson's (1968) stress on ego-growth and the stages of ego development in a psycho-social context. The 'Industry vs. Inferiority' stage given by him is the time when the young person first begins to work out his attitude toward work and achievement. Later, work becomes a major source of fulfilling one's identity. Erikson characterizes the stage of "Identity vs Role Confusion" with the expectation from the adolescent to master developmental tasks related to ego identity and identity as a potential worker. Kakar & Chaudhry (1970) believe that with greater work-orientation in today's culture the choice of career is an even more important element in identity formation of an individual. Blocher (1973), however, questions the centrality of work as the primary source of self-esteem and identity. This, according to him, is not applicable to certain categories of workers.

Midway between classical (Freudian) and modern (Eriksonian) ego theories are Hendrick's (1943) views. According to him, Freudian 'reality principle' and 'pleasure principle' are insufficient to account for psycho-social activities. He puts forward 'work principle' which posits that work has some intrinsic value and it governs the operation of the 'executant functions' (ego functions) energized by 'mastery instinct'. The pleasure in work, then, is a consequence of gratification of the instinct to master the environment by exercising and applying one's intellectual and muscular resources. In Hendrick's opinion, then,

work serves not merely as a means to an end, it is an end in itself. Lantos (1943, 1952), another psycho-analyst, attributes work activity to the instinct of self preservation. She defines work as a "highly integrated ego identity serving self preservation". She sees pleasure in work achievement as an *ego* reaction and not an *id* reaction.

Other conceptions of work take into cognizance the socio-cultural dimensions. In sociological parlance, work is the activity performed by individuals to produce goods and services of value to others (Hall, 1986). Rothman (1987) notes that work is typically performed in a socially structured context and, as such, presupposes sets of conventions, both interpersonal and technical by which the worker is expected to abide. Schrecker (1968) is of the opinion that unless "all acts called work operate some change in the province of civilization in which they pretend to be considered as work, they will not be the same as work". Work, according to this view, is something that ought to be done in more general and objective interests and should fall within some norms. This view presupposes a harmony among all the norm systems across cultures to rule out the possibility of conflicts in recognizing what is work and non-work in broad sense. It is, on the contrary, generally recognized that the positive and negative meanings attached to work are more of a cultural phenomenon, than they are intrinsic to the nature of work. Work values are in large measure socially acquired and adhere to a framework of work philosophy and work ethics prevalent in a society.

To the extent that work provides opportunities for playing social roles and fulfilling socially acquired purposes, work has social value for the individual. Role-salience research (Nevill & Super, 1988; Super and Nevill, 1984) has demonstrated that the meaning of work is related to social class. Work can be seen as drudgery or it can be seen as liberation; it may be a necessity or it may be irrelevant depending on one's work and life values. It is, however, generally assumed to bestow honour and prestige on the individual involved in work. Traditionally, some forms of work have enjoyed higher recognition and economic rewards than others. Work has been interpreted in terms of the skills required to perform. Superior skills involved in work have meant superior status, superior income, and economic power. Paradoxically, in our ancient Indian Society, the manual skills were upheld as

honourable, as the agriculture (Krishi), which is entirely manual work, was regarded as one of the two most honoured of the occupations, the other being trade (Vyapar). Instances of higher forms of work witnessed in societies are: learning to acquire new knowledge and using knowledge for the ultimate good of the mankind. But whether work is performed at a lower level of skills or higher professional level, its utility for society is recognized beyond doubt.

What does work behaviour consist of? Neff (1974) is of the view that work behaviour is a function of two interlocking and intertwined sets of variables, one of which consists of enduring personal characteristics like abilities, skills, aptitudes, and habitual patterns of cognitive and emotional responses. The other is the demand characteristics of work situation which constitute a special kind of environment. These latter include structural features such as locale, the privacy vs. impersonality, time, interpersonal features such as relations to authority, peers, and customs and traditions.

Earlier, counselling psychologists like Super (1957) emphasized many of these work characteristics as important motivating factors for people to work. Roe (1966) and Super equate work with one's life vocation or occupation. Roe defines occupation as "whatever one adult spends most of the time doing that may be what he does to earn a living or it may not. It may be hobby or it may refer to duties of some sort or another, paid or unpaid... The occupation, then, is the major focus of a person's activities and usually of his thoughts".

### **Work and Human Motives**

Perhaps the most important of concerns for counselling psychologists is to understand the way people get involved in work and react to work experience of some kind. Vroom (1964) discusses motivated behaviour with reference to "psychological events occurring contemporaneously with the behaviour". Preference for an action, for him, refers to a relationship between the strength of a person's desire for or attraction toward, one or both or none of the two alternatives available as outcomes of action. Such affective orientation toward outcomes has been described by psychologists as valence (Lewin, 1935; Tolman, 1959), incentive (Atkinson, 1958), attitude (Peak, 1955), etc. Other concepts like need (Maslows, 1954), motive (Atkinson,

1958), value (Allport, Vernon, and (Lindzey) and interest (Strong, 1958) refer to a strength of desire or aversions in a broad sense.

Work motives originate both from within persons and from the socio-cultural environment surrounding them. The internal sources of motivation are the basic drives and needs which have a great deal of dynamism attached to them. Other motives are acquired and learned due to social needs of recognition, status, affiliation etc. Work activity may be *intrinsically* motivating, rewarding, and enjoyable. It may also fulfil some immediate or ulterior motive such as removing the source of pain, or preparing for some future goal. Where there is more of spontaneity there is more of intrinsic satisfaction and no instrumentality of purpose. Then it is close to play, too. Bordin (1990) suggests that participation of personality in work comes from the spirit of play. He speaks about spontaneity of 'self-expression', and 'self-realization' in responding to situations. For the child who is more spontaneous, work and play are naturally fused, but he is made to put in effort toward mastery. The distinction between play and work emerges if the motive for this effort is not internalized. Work and play are kept apart if the motive remains alien. Bordin further proposes that individuals grope for an ideal fit between self and work through a series of career decisions. It is this fit that transforms the imperative to work into a vocation as well as a source of self fulfillment. The self engrossment of intrinsic satisfaction associated with work is valued in Gardner's (1968) words as, "What can be more satisfying than to be engaged in work in which every capacity or talent one may have learned is used, every value one cares about is furthered". Gardner gave as much importance to play among adults for fun's sake, as to fusion of work and play in them.

The *instrumentality* of work refers to using work activity or work situation for manipulation of means directed towards some end. It involves planned alteration of environment physically, socially, and cognitively. Webster, emphasizing the instrumentality of work activity distinguishes between "doing something undertaken for gain, or physical condition, or compulsion of any kind, as distinct from something undertaken for pleasure, sport, or immediate gratification....." An analogous view is found in Herzberg's "Motivation-Hygiene" theory. He distinguished between job

characteristics which make people happy, contented, or self realized and factors of the job context that produce dissatisfaction. Among the first are the motivators like achievement, recognition for work, work itself, responsibility, and advancement. In contrast, the factors of hygiene of the dissatisfiers relate to fair treatment, company policy and administration, supervision, wages, inter-personal relations, and working conditions. These latter produce motivation to avoid pain, rather than 'motivate to work'.

It is observed that individuals develop and acquire value preferences of their own in relation to work. Value systems relevant to work increasingly encompass dimensions of status, prestige, independence, power, dignity, and opportunity for satisfying interpersonal relationships. Increasingly, work tends to be valued in terms of its opportunities for facilitating optimal personal development of the worker. The economic survival motive is being replaced by a higher order need which, in Maslow's terms, can be called "self-actualization." The obvious relevance of work simply as a means of economic survival is no more congruent with the facts of life in advanced and advancing societies. Work as a means of fulfillment of motives of a higher order rather than only the survival needs has been adequately explained by Roe (1956). She adopted Maslow's, (1954) need hierarchy arranged in order of prepotency of needs, in which the need for information, understanding, beauty, and self actualization were generally sought to be met by those persons whose physiological, safety and belongingness needs were satisfied. Roe contends that occupation is the single most important situation which is potentially capable of giving some satisfaction at all levels of basic needs. At the highest level, work is upheld as a predominant value of man and is perceived as a means of self-actualization.

The well known Rosenberg's (1957) study on identifying occupation linked values arrived at three "value-complexes" or orientations in work, viz; "self-expression", "people-oriented", and "extrinsic-reward oriented". Stability and security of job was preferred to money and social status under the extrinsic rewards. Cultural differences notwithstanding, changes in trends in work-related value preferences are occurring in every phase of life across the cultures. In sample survey of Indian Youth by Marg (TOI, Feb. 95) Military

Service was least preferred largely due to lower economic returns. Money ranked the highest motive among the youth, their parents, and teachers alike. Power and prestige were cited as the predominant reasons for opting for civil services. Money and prestige/status were also ranked highest (NCERT, 95) by a group of school going adolescents of low middle and middle SES in stating reasons for their preferred job titles. Some of intrinsically pleasurable values that emerged from this analysis were preference for helping people, challenging and adventurous work, and knowledge, in descending order of popularity. The above findings substantiate the work ethic popular in the West these days, the Materialistic Work Ethic (Korman et al, 1983), which has dominated the American culture for a few decades, and which is also not alien to present day Indian Youth, particularly those belonging to higher socio-economic strata. The value-expectancies of work also seem to be a function of age, educational and career maturity, and work experience, as shown in contrast to the findings of the Marg study, by two distinct groups of respondents. The first of these consists of about 150 respondents falling in the age group of about 22 to 35 years, entering a professional course in helping services (NCERT, 1991-1995). When asked about motives of people behind working, they gave self-realization, self-growth, and economic independence the top priority, with as many as 30 per cent endorsing these values. These were followed by factors like need satisfaction, enjoyment, social service, ability to maintain family relationships. A sense of worthiness, self-esteem, respect, recognition, work relationship occupied a middle level position. Some other values were mentioned with lesser frequency.

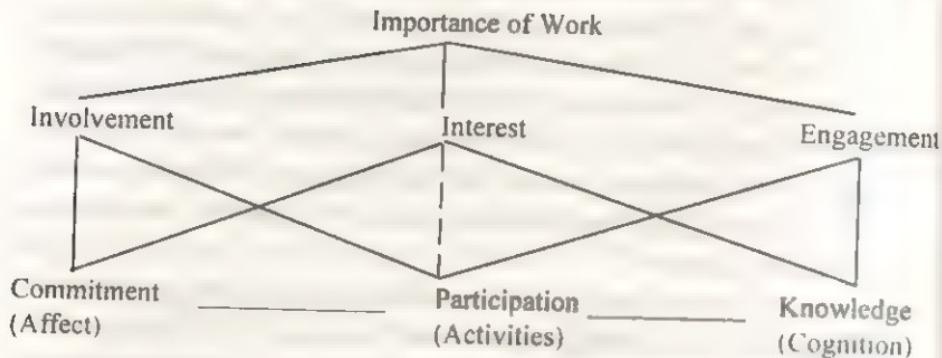
The order of findings (Sinha, 1990) of a research study of value expectancies (realized and anticipated) conducted on lower and middle level managers belonging to six organizations in public and private sectors, revealed the factor structure with highest loading on *self-realization*, consisting of ability utilization, achievement, advancement, aesthetics, creativity, personal development and peace. *Socio-economic support* consisting of economics, social interaction, social relationships, working conditions, comforts, dependency received the lowest endorsement by the managers. *Status enhancement* including altruism, authority, physical activity, prestige; and *sulphitic values* including

autonomy, creativity, life style, risk taking, variety, ranked II and III respectively.

Studies have also substantiated the beliefs concerning the role of psycho-social variables like intelligence, achievement, SES, parental influence, school influence, and needs and values as motivating factors in specific career preferences of adolescents (Vasantha, 1977; Yadav, 1983). Of these, intelligence, achievement, SES, were found to be the positive motives for Arts students. Other motives were, in general, found to be operating among all adolescents. Religious, social, economic and power values did not occupy a significant position in their value hierarchy.

Counselling psychologists have drawn a distinction between 'work salience' and 'value-expectancy'. The 'centrality of work' (work-salience/importance of work) in life determines work related and other roles the individual will visualize for himself and the value expectancies he anticipates in work. Super (1982) studied the dynamics of the importance of work. Work was considered to be one of five major roles - the other four being studying, community service, home and family, and leisure activities. In the Work Importance Model developed by Super and his working group for the work importance study, they established the interrelationships between various factors of work salience. The *importance of work* (Super and Nevill, 1986) is jointly determined by cognitive (knowledge), affective (commitment), and activity (participation) factors. Involvement, interest, and engagement are the intervening variables which are related to commitment, participation, and knowledge factors through a matrix of interrelationships (Fig. I). *Value-expectancy* means the chance to realize an important value with the help of anticipated help of work. It is, thus, the product of the importance attached to a value and probability of the value being realized through work experience. Importance of both work and value are conceptually distinct from 'instrumentality' to satisfy various needs.

**Figure 1.1**  
**Work Importance Model**



*Source:* Super, 1982.

In his earliest formulations of the career theory, Super (1957) attributes need satisfaction of a large variety to work activity and work situation. Attempting to analyze the various needs, motives, and values described in literature as determinants of the desire to work, he laid a lot of emphasis on the expectations of the individuals from work in terms of implementation of personal-social, vocational self concept and the place of work in determining the life style. He established a two-way relationship between work and the way of life, both influencing each other. The important needs satisfied through work were categorized into three broad headings, viz; Human Relations, Work, and Livelihood.

The first, the *human relations* or the inter-personal relations are tightly woven into the fabric of work culture. In this age of advancements in work motives, work ethics, and work culture, human relations have taken precedence over organizational goals. Work gives individuals a sense of personal-social identity, a sense of belongingness, recognition, and worth and status for his contribution to the work organization. Recognition comes from independence at work, being able to control one's own action within a given framework, freedom to plan things, express opinions, and set the pace of work, etc.

Recognition also means that one is given fair treatment. It comes through adequate and just appreciation of one's work, and through an equitable system of rewards based on standards known to all.

Social status consists of one's standard of living, values, beliefs, attitude, friendships, leisure activities, etc. Social status comes through one's occupation. In attempts at measurement of social status it has been shown that occupation is the single most important index of social status. In the U.S.A., Warner (1949) while developing his Index of Status Characteristics used a method of 'Evaluated Participation' through which non-occupational criteria were used as indices of the subjects' social status and compared with ranking of their occupation. He found a very high correlation ( $r = .91$ ) between the two kinds of ratings, substantiating the belief that occupation was the strongest variable in determining social status. In India a number of such tools to measure Socio Economic Status (SES) such as those of Kapoor & Kapoor (1970), Jalota et al (1970), Kuppuswamy (1962), Rao (1977) and a number of others have been available.

Occupational and career choices are also a function of one's SES. There is a mutual relationship between the two variables, each taking precedence over the other in certain ways. In this respect one's perceptions of the prestige attached to an occupation and the level of career aspiration quite often depends upon the SES background. For example, an adolescent from a suburban weaver's family may not think in terms of qualifying as a textile engineer, as his resources may be limited, his self-concept more realistic in tune with his family background. He may think more in terms of middle level or semi-professional courses if at all he plans to go in for higher education.

Jobs and occupations have been most popularly classified into status hierarchies according to the type of work performed. The earliest attempts in this regard (Edwards, 1943) classified occupations into Professional, Proprietary and Managerial, Clerical and Sales, Skilled and Supervisory, Semi-skilled, and Unskilled levels., Roe (1966) modified the first four levels as Professional and Managerial-level I, Professional and Managerial-level II, Semi-Professional, Clerical and Sales, and Skilled occupations. In both of these classifications, income and education were found to go invariably with the level of responsibility and professional/vocational skill required.

Engaging in *work activity* and belonging to *work situation* are two important aspects of work qualifying respectively as 'intrinsically' and 'extrinsically' motivating. Work activity consists of content and work situation consists of context, the important motive being fulfilled is 'self-expression' of abilities, interest, and aptitudes through work in the work content and the extrinsic values like human relations, work ethos, work environment etc. in the work context. Since work occupies most of the working hours of persons, one attempts to combine leisure and other socio-psychological pursuits with vocations.

Super gave due importance to the *livelihood* needs which have to be satisfied before the other needs assume significance. Earnings have both psychological and social significance as much as they have implication for material success in life. Super differentiates between absolute level of income which is required for subsistence and comforts, and the relative level of income which has more of a social connotation. One is motivated to earn at least as much as others of his/her age, education, seniority etc. Livelihood is also a source of future security if the individual is able to continue holding the work position and save for future needs. Super stresses the person's seniority, hard-work, and ability, as differentially related to certain categories of jobs.

### **Work Ethics and the Indian Youth**

It is well understood that work is a means of subsistence, a source of psychological and social identity, a source of self-fulfillment and self-realization. Intrinsically satisfying work leads to ego-involvement to a maximum degree. Work is equated with one's life work or vocation and it serves a meaningful function of providing outlets for leisure time pursuits. Work ethos and work culture are integral aspects of work which motivate persons to put in their best. If there is a close link between work values of the person and work ethos, both the job satisfaction and productivity are enhanced.

In the changing social scenario of this age of advancement towards affluence and technological sophistication, work has assumed a much different meaning than before. The religious and moral dogmas and sentiments attached to work are receding to the background. A high premium is placed on materialistic aspects of work. To the majority of

the modern Indian Youth work is now closer to being a source of materialistic gains rather than a moral duty or the ideas of yesteryears such as 'simple living and high thinking'. The Indian youth is no more rebellious and idealistic in the social context. Personal gains and personal development as goals in life motivate the majority of young aspirants in search of life work. The 'centrality of work' in life revolves around 'Materialistic Ethic' so very characteristic of socio-economically affluent societies. The hedonistic philosophy has taken over the altruistic ideas upheld by our philosophers and statesmen in the past. The modern Indian youth is more reality-oriented, aware of the hard facts of life, living in the present and planning for future. The pleasure-orientation earlier directed at intrinsic satisfaction in work is now coupled with materialistic gains. This is as much true of higher strata as of the economically deprived. The child of not so well-to-do Indian parents may not aim very high in the world of work, but his aim is targetted at procuring 'the best' in life.

However, the present work structure which is predominantly automated is more instrumental in alienating youth from intrinsically valuing work. The work-experience in today's world of work is highly depersonalizing experience with most of the work requirements for an average worker centering around monotonous, push-button, repetitive tasks dominating the scene due to mechanisation, and micro-level division of labour and work units. Where does then self-fulfillment that was so very characteristic of the old culture of artisans and craftsmen come from? Is work not more of drudgery for most people?

The answer perhaps lies in encouraging creativity as a work value, and providing work opportunities alternating between repetitive and creative tasks, thereby adding more meaning to work. Contrary to the popular belief regarding the craze for material pursuits, Korman et al (1983) speak about new work attitudes and feelings among people which encompass a wider array of work motives titled as 'New Work Ethic' (i.e. the Self-Growth Work Ethic). It may not be a distortion of facts to say that though evidently our urban middle class youth are highly practical in life, in the inner recesses of their minds, they crave for realizing other values at work too. The Self Growth Work Ethic, consists of the following: (i) a concern for meaningful work in the sense of having significance, variety, autonomy and feedback; (ii) a

shift of energy and attention to leisure time activities; (iii) a concern for money, (iv) an indifference to traditional penalties for performance; (v) an intense need for feedback, (vi) a stepped up sense of time; and (vii) a wide array of compensation and work condition needs. In a theme analysis (NCERT, 1995) of the reasons why some youngsters wanted to enter their preferred careers, many of these self-growth tendencies were reflected. Next to money and prestige they opted for helping, adventurous, and challenging jobs, and revealed a quest for knowledge. These latter, it is evident, are primarily personally satisfying than monetarily rewarding.

In summary, this chapter concentrates on providing an acquaintance with the meaning and nature of work and its relationship with an individual's seeking fulfillment in life through one's life career. Work has had historical significance, and spiritual and religious connotations. Work had earlier been regarded as a means of salvation. The structure of our society was based on 'Varnas' which provided an occupation and work-based classification of various sectors of population. Work in modern society has been variously interpreted in accordance with different disciplines of study and has economic, psychological, and sociological significance. Psychological meaning of work has gone through a transformation over the decades, and the shift from classical ego theories to ego-growth processes involved in work has taken place. Work ethics include materialistic gains as much as self-growth motives. Thus, both innate and acquired motives have been attached to work. Further, what one does to earn a living, to satisfy inner urges, and to satisfy life values is related to one's preference for life-work. One's life-work or career establishes one's identity as a person, and is also a source of personal fulfillment found in opportunities for expression of abilities and skills, and emotional responses to its functional and structural aspects.

## Chapter 2

# CAREER THEORY ITS NATURE AND SCOPE

*Swadesh Mohan*

Career theory deals with human motives, skills, and environmental forces that are instrumental in development and execution of long-term career goals among individuals. Any theory of human behaviour consists of constructs and propositions deduced from observation of people in environments and their methods of handling personal-social and educational-vocational situations. Osipow (1983) is of the view that with the advancements in the science of psychology it has become possible to work out theoretical structures and empirical bases to predict and control human behaviour in a variety of situations with a great deal of efficiency. The application of principles of human behaviour has already been established in clinical, industrial, and educational-vocational settings. Brown & Brooks (1990) state that the social scientists who have attempted to explain career behaviour, have for the most part, taken the position of 'logical positivism' which assumes that people can be separated from their environments and their behaviour studied in lawful, linear fashion, and hence the focus of inquiry should be the observable actions of human beings irrespective of the environment. In contrast is the recent phenomenological position advocated by some social scientists according to which human behaviour should be analyzed in a subjective frame of reference. This approach recognizes the importance of context in which the behaviour occurs.



Career theory has emerged out of application of vocational psychology principles in a personality-occupation matching paradigm. In this, it focuses on "*individual in search of work*" rather than on "*work itself*". A career theory has the individual as the central figure, one who is going through the process of thinking and planning about careers, preparing to enter the chosen career, and attempting to establish and make required adjustments. With the prospect of retirement in view, he even pre-plans for retirement to make use of the knowledge, skills, and vocational interests nurtured so far.

Different opinions about how individuals embark upon careers are available in literature. These views have been well formulated into comprehensive theories. Some of the established ones of these have been discussed in Chapter 4.

### **Scope of Career Theory**

Career theorists have had their leanings while developing their theories, on their definition of the term 'career'. The term is no more restricted to one's job or vocation. Oxford English Dictionary (1961, Vol. VI, P III) defines career as "a person's course or progress through life". Career, according to Gordon (1974), refers to the development of the total human being, how he lives his life, rather than how he earns his living. Of great importance are the biological and social roles which the individual must deal with viz., family living, selection of friends, cultural identification, and realization of self-expression tendencies etc. In a more psychological framework, persons have devoted considerable attention to concepts like life stages and developmental tasks (Super, 1957, Havighurst, 1953), and regarded career as a means of self-actualization. Distinguishing career from either a job or an occupation, Super (1983) defines career as "a sequence of positions occupied by a person throughout his or her preoccupational, occupational, and post-occupational life". In this are included work-related roles such as those of student, employee, and pensioner. In a broader sense Super (1980, 90) includes non-occupational or rather complementary or alternate roles such as home-maker, citizen, and leisurite. Geysbers & Moore (1987) in emphasizing a holistic approach to understanding career development, state that the word 'career' identifies and relates the many and often related roles in which individuals find themselves —

roles related to home, school, work, and community; and the events that occur over their life-time such as entry into jobs, marriage, family, retirement, etc.

Sociologists like Arthur et al (1989) define career as "The evolving sequence of a person's work experience over time" giving central importance to 'work' and 'time'. Work, in this context refers to the people, organizations, and society and time is a "moving perspective" on the unfolding interaction between the person and society. In Erikson's terms this moving perspective offers a link between an individual's initial identity and final integrity over the course of his or her adult life. Erikson lays a great deal of stress on the concept of identity while elaborating on the process of human development. According to his humanistic viewpoint, career can provide opportunities for further self-growth and self-realization. Erikson, in particular, emphasizes the importance of social context and one's relative position within this context in shaping identity.

Given that work is both a psychological and a social situation, it appears that both psychological and social strategies should dominate the field of career psychology and career theory. The scope of career theory, in this manner, spreads over a wide range of situations for individuals involved in planning and selecting an educational and vocational career, in facing selections in job situations, and subsequent job adjustment, in rehabilitation counselling for mid-career disabilities, in severe career maladjustment leading to the need for clinical treatment or hospitalization, in drug and alcohol deaddiction centres. Thus the main areas related to career theory are educational-vocational guidance and counselling in school and college set up; personnel psychology concerned with the selection, training, and promotion of employees; and industrial social psychology concerned with the motivation of the worker and his relationship with the work group and environment. Career theory, both as differential and developmental, comes close to the work of persons concerned with personality development in general, cognitive, affective, moral, and social development in particular, achievement motivation, adolescent psychology, social psychology, vocational behaviour, and labour economics to say the least.

### **Evolution of Career Development Theory in the West and in India**

Experience accumulated over the years and experimentation with career behaviours have enabled professionals in the field of behavioural sciences to organize their ideas and data and thereby derive well formulated theories of career choice and development, particularly in the Western world. It has been stated earlier that, career choice and development theories emerged as an important aspect of vocational psychology. They are distinct from 'occupationology' (Roe, 1956; Crites, 1961) on the one hand and 'differential psychology' (Tyler, 1965) on the other. Career Psychology has gone through two major stages of evolution (Super, 1983). It started out as the differential psychology of occupations with a focus on characteristics of men and women doing the work. It gradually evolved into developmental psychology of careers of boys and girls considering and pursuing the occupations. In the latter sense, knowledge of career psychology aids in having a deeper understanding of career decision-making process.

As *differential psychology* in the initial phases, career theory was mainly based on the principle of matching men and jobs, and using information about differences between men and women on certain demographic, social, and psychological variables, and relating them to the work they were doing either successfully or unsuccessfully. Aptitude testing was greatly used during World War I when the need to classify large numbers of new entrants into the Army and to assign them to appropriate military jobs was felt. Army Alpha tests were constructed following the work of pioneers in the area of intelligence testing such as Alfred Binet, Arthur Otis, and Lewis Terman. World War II gave further impetus to the development of aptitude testing. Army Alpha tests were replaced with more specialized tests like Army General Classification Test. Subsequently, in the United States of America, a large number of psychologists were employed for test development and personnel research. Programmes of job analysis and development of occupational ability profiles to be used in vocational guidance and placement were also launched around this time.

During the Great Depression years following the two wars, the need was also felt to reassign people to civilian fields of employment which were expanding then. This, combined with the attempts at job analysis, test development, matching of test results with success/failure

in the occupations, job psychographs, etc., boosted the field of career psychology. Some of the outstanding contributions of this time in the field included the General Aptitude Test Battery (Dvorak, 1947), the Dictionary of Occupational titles (U.S. Department of Labour, 1940), and the Occupational Outlook Handbook (U.S. Department of Labour, 1949).

The earliest attempts at employing the differential psychology principles and occupational information were demonstrated in the beginning of this century by Frank Parsons (1909) who set up a counselling service centre to help the youth make a 'smooth transition from school to work'. The three steps advocated by him in vocational counselling practice were self-analysis, occupational analysis, and "true reasoning". The matching method became an eminently usable method of vocational psychology. Later, Parson's method came to be used with the aid of modern technology like computers.

While efforts of some psychologists like E.L. Thorndike and Edwin Ghiselli gave information on special aptitudes as related to choice and success in occupations, career theorists like Anne Roe (1957, 1964) and J.L. Holland (1973, 1988) concentrated on personality traits in relation to choice, entry, and success in occupations.

For about half of this century, vocational psychology was dominated by theories and measuring instruments for matching of people and occupations. Vocational psychology movement had also spread over the eastern world countries including India. In 1954 the Govt. of India set up a Central Bureau of Educational and Vocational Guidance at the Centre, and the corresponding state level bureaus. The guidance movement took roots in the country with interest being maintained in preparation of career counselling tools and procedures. Some of the Indian states like Gujarat, Maharashtra, Delhi, Uttar Pradesh (U.P.), and Madhya Pradesh (M.P.), etc. have been having active career development programmes. Counsellor-training programmes have been conducted at the National Council of Educational Research and Training (NCERT), the Bureau of Psychology, U.P., the Institute of Vocational Guidance, Maharashtra for over 35 years. In the area of personnel selection, too, testing procedures are being adopted in industries, banks, defence services, and public service commissions etc.

The differential psychology approach, the Trait and Factor Theory and its instruments were popular long enough and have survived till today. But, several trends like advancements in mental hygiene movement, clinical psychology practice, knowledge and training of other applied aspects like counselling theory, psychometrics, personality theory, and social psychology with an emphasis on developmental aspects including how and why of unfolding of careers changed the nature of vocational psychology to become developmental in nature. Vocational psychology had come to be known as 'Career Psychology' with the work of Charlotte Buehler (1933, 1959) and Paul Lazarsfeld (1931) at Vienna, who had conducted longitudinal studies of work in relation to lives of men and women. At about the same time in America, Davidson and Anderson (1930), a sociologist and a psychologist studied occupational histories of a sample of American men followed later by sociologists D.C. Miller and W.H. Form (1951) publishing a study of careers of another sample of adult males. Contemporary developments related to vocational guidance and selection were at their peak in America at this time. Impressed with Buehler's developmental work, Super (1942) wrote a text on vocational adjustment. Super's developmental emphasis on careers assumed that much before the individual finally selected a career and entered the process of adjustment, he consciously or unconsciously went through the process of selection of a job for himself. This process consisted of having percepts and concepts about work, work environment and one's self. Then came the famous longitudinal Career Pattern Study (Super, et al 1957). Before that Ginzberg et al (1951) had published their occupational choice study emphasizing for the first time in the history of vocational psychology that career decisions went through developmental phases.

The longitudinal study by Gribbons and Lohnes (1968, 1975, 1982) was a similar attempt at studying subjects from adolescence to adulthood. Personality theorists like Roe and Holland, though they initially based their work on differential psychology, came closer to developmental theorists in so far as according to them persons are constantly in search for better situations to enhance their career adjustment. Developmental approaches to career theory have later been

witnessed in the seventies and after (Osipow 1973, Krumboltz; 1979; Lowenthal et al 1975; Card et al 1975; Hilton, 1973 etc.).

### **Career Development Theory and Counselling**

Whether careers are preceded by a 'one-time' choice or they develop out of a 'sequential process' of decision-making, the role of counselling is important beyond doubt. Counselling practices are based on what view one takes of career decision making. The essential steps of conceptualizing the client's problem, using client and careers information during counselling sessions are invariably involved in counselling. It is generally assumed that understanding and guiding the career behaviour of individuals amounts to fitting the facts into some system having a theoretical structure and empirically validated set of concepts and constructs, with reasonable degree of consistency and validity.

Cormier and Hackney (1987) note that counsellors use theories in order to organize information and observations, to conceptualize client problems, and to order and implement particular intervention strategies with clients. A theory serves as a guide and induces necessary confidence in the counsellor. It also enhances the credibility of counselling procedures. On the other hand, a theory may also be strengthened after it serves the useful purpose of prediction and control of human behaviour. The relevance of theories starts right from the time that the career counselling begins and continues through various stages. Osipow (1978) contends that in dealing with problems faced by humans, applied psychologists are compelled to be eclectic and even intuitive. Eclectic counsellors do not hesitate in complementing and supplementing various approaches. For example, the differential approaches may be handy for diagnosing the deficits or assets, whereas need theories may be instrumental in tracing the intrapsychic factors behind certain expressed preferences, attitudes etc. Developmental theories may assist in evolving strategies for nurturing interests and potential at various stages of development. Some theories place more reliance on the ability of the counselee to benefit from minimal facilitation, whereas some others may be more directive to take charge of the client. The theories have nevertheless provided guidelines to deal with the vast array of counselling problems and situations.

The issue of using theoretical models in psychological practice has given rise to a controversy between professionals and pure academicians, the former believing in quickly preparing a plan of action and the latter looking for empirical evidence to provide basis for the plan of action. The fact remains, however, that the academicians' interest in finding basis for generalization is as important as the emergent needs of counsellors to devise need-based plans. Both go hand in hand and supplement each other. Theoretical models have suffered from serious limitations of narrowness of purpose and fragmentation of models to tackle counselling problems. Yet a well developed theory of career development must precede empirical knowledge in its process of maturity. Whether explicit or implicit, a theory stimulates research and gives direction to activity.

The utility of career theory in understanding career behaviour, guiding human potential, and enhancing happiness in life has been recognized as much in India as abroad. The interplay of factors, both personal and environmental, takes place in all cultures and social situations. There are the growth processes within the individual and there are the growth processes in the society. Our Indian society is moving at a fast pace and changing at a fast rate.

The motives behind choosing certain careers or jobs may be primarily monetary to be able to live in style, but the mind of the Indian youth is as much obsessed with self-expression and self-realization as anywhere else in the world. Career selection in India is also a function of deep-rooted social and moral values which advocate performance of one's duty towards the self and the society and to make the most of the available opportunities. It is true also, that the balance between opportunities and personal desires may not be ideal due to the vastness of population and wide gaps in sources of information.

In Chapter 3 an attempt has been made to discuss the Indian situation as it is shaping the career destinies of our youth.

## Chapter 3

# CAREER DEVELOPMENT IN THE INDIAN CONTEXT

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*Swadesh Mohan*

History of 'careers' in India is traceable to mythological influences such as division of society into four 'Varnas' (Castes), described by the Rigveda as the four limbs of the 'Purusha' related to one another as parts of a common organism. The completeness of social life even in ancient times required a variety of groups and functions, all of which as Mookerjee (1951) holds, were necessary for it. The Vedas did not differentiate between the castes and treated them as equally indispensable members of the social organism, like limbs of the body. Varnas were equal in status and dignity, though the Sudras (Pushan) lay the foundations of economic and social life in agriculture. Some of them also worked as scavengers, barbers, shoe-makers etc. The functions of the other three Varnas were: the Brahmins — regarded as the learned people to perform ritual and religious rites, the Kshatriyas — the warriors, and the Vaishyas — the business community. The division into Varnas, however, did create caste barriers, and a hierarchy among castes eventually. The institution of caste predetermined the work, the family life, marriage, and social life of virtually everyone. The castes came to have sub-castes, their number having grown to unproportionate dimensions. The caste structure gave people psychological, social, and occupational security but it also affected mobility, both geographical and social.

In this deterministic society the youth had little diversity of possibilities, though lesser of fear of uncertainties. Career choice and occupational preparation was a simplistic phenomenon decided at birth in a relatively simple occupational structure. Consciousness regarding the individual's potential to do other things and perform in different occupations equally well was absent. The industries were mainly small-scale home-based. The family as a unit was the influence and the source of career preparation. The career aspirations revolved around entering and enhancing the prospects of the home-industry in this limited world of work. In this social and occupational set up, the young aspirants made a smooth entry into the world of work and were regarded as a distinct economic asset. The 'new entrant' was more of a misnomer. The vocational skills and work-related values were picked up incidentally in the reality of available occupational environment. Work satisfaction was more of an intrinsic phenomenon. The craft products were a source of expressing one's personality, creativity, and other abilities. The artisan took pride in owning his product and identifying himself with it.

In a philosophical perspective, the common man, according to the ancient Hindu beliefs propagated by Upanishads went through four stages of life (Asramas). These four stages are : Brahmacharya-asrama; the Grihastha-asrama; the Vanaprastha-asrama, and the Sannyasa-asrama. According to Mookerjee (1951) the Brahmacharya embraces not only the student period proper, but the entire course of life is regulated by this asrama as the way that leads to Atman. Three branches of duty viz.; sacrifice, study, and charity had been prescribed corresponding to the Grihastha-Asrama. Living in austerity and perpetual Brahmacharin were attributed to the Vanaprastha-asrama. In the BrahmaSamista the fourth asrama, the Sannyasin alone obtained immortality according to *Chhandogya*. The Upanishad also exhorts the Brahmacharin to complete his studentship to become a householder and attain fruition in life of self-study and self-discipline. The Upanishads also recognize the last three asramas as being ultimately but forms of brahmacharya as the underlying principle of life. In India, this philosophy has been deeply ingrained in the Hindu way of life. The spirit of sacrifice, duty, austerity has always been encouraged among children in a typically orthodox Hindu family, though radical changes

in social milieu and economic values have now taken place. Some of the factors like breaking of joint family system, the erosion of old work values, technological complexities, the rising aspirations of the youth, the migration of rural labour force to cities, and above all the rising rate of unemployment has led to unprecedented changes in the outlook towards life. Overall a materialistic outlook and strivings leading to 'Upwardliness' in general have resulted. Social reforms introduced at various levels have brought about changes in the rigidity of caste structure and mobility outside the family occupation has become frequently possible. The old tendencies to stick to the family and class have given way to aspirations for more remunerative jobs outside the villages in big towns and metropolis. In this process, education, too has been dissociated from caste hierarchy (Kamat, 1985). The hierarchy within the society is now more in terms of socio-economic class graded by income, wealth, property, occupational membership, and educational status of parents, etc. Even the concept of 'class' which was earlier regarded as a social phenomenon to qualify ethnic groupings of people is now akin to socio-economic hierarchy of high, middle, and low classes.

The post-independence scene influencing career development of persons comprises social structures other than family, like 'Work' and 'Education'. These structures are understood to be interdependent. For example, social stereotypes determine to a great extent the popularity of a good number of occupations and may thereby create an artificial scarcity of jobs in those occupations, or a change in curricular policy may be called for in order to meet technical and non-technical requirements of manpower at a given period of time. These structures, thus, have an important bearing on the process of preparation of individuals for a "future life course", as the developmental psychologists would have it. Career development as per the personality theorists requires the individual as organizer of experiences to attempt to match the extraneous situation consisting of these social structures including the probable work situation with the self and the self-concept and effect changes, wherever possible, in his personal-social and vocational situation. An understanding of various social structures as they influence career entry is desirable.

## FAMILY

In the broadest sense of the term family is that social unit which is responsible for parenting the children (Lucky, 1974). The family is the primary unit transmitting values, skills, and social sensitivities that individuals need in order to operate effectively in this culturally and technically complex society. The family influences on career development of adolescents manifest themselves in a variety of psychologically and sociologically meaningful ways to a significant degree. These influences emanate from (i) family structure, (ii) family relationships and functioning, and (iii) family background factors. These variables serve both as situational and motivational determinants. Among the situational determinants are included the biological and genetic, demographic, cultural, and socio-economic factors. The motivational determinants consist of parental encouragement and support, parental ambitions, aspirations, expectations, etc.

### *Family Structure*

Family structure refers to the composition of the family, primary membership as well as the extended family, the family size, spacing of siblings, and birth order. Family size is a variable of personality development operating through interrelationships among siblings and significant others. Lucky (1974), however, contends that the family size as a variable gets so enmeshed with other variables such as race, economic status, etc. that direct relationships are difficult to establish. Going by the sheer size of the family, the magnitude of influences of members, the relationship patterns, the occupational roles depicted, the material resources etc. will be either present or absent to a certain extent.

The ordinal position of the siblings is said to have an impact on personality development in Adlerian thought. Following this psychology, Dinkmeyer, Pew and Dinkmeyer (1979) have discussed the impact of siblings position on '*life style*'. They hold that personality and character traits are expressions of movement within the family group. Each individual family member influences the group and the other members of the family as much as is influenced by them. Each member of the family has early relationships with other members in an effort to gain a place in the group. All strivings are directed towards a feeling of belongingness. Further, an individual's experiences in the

family are the most important determinants of one's frame of reference for perceiving, interpreting, and evaluating the world outside of the family (Geysbers and Moore, 1987). A cross-national study (Mehta & Juneja, 1969) conducted to test the birth order hypothesis in relation to career aspirations of girls and boys coming from mediocre socio-economic set up in an urban part of Delhi and a small U.P. town did not, however, reveal any significant influence of the ordinal position categorized as the first born or the later born. Sinha (1967) reported first-borns to be higher on need for achievement than later borns. A contemporary finding in the U.S.A. (Rosen, 1961) revealed that the need for achievement of the first born was affected by the increased family size, probably due to socio-economic hardships. Sibling position was related to adjustment level (Reddy, 1966; Seth, 1970). A study conducted more recently in the U.S.A. (Bradley, 1982) has found a significant relationship between the child's first position in the family and their career choices as astronauts, attorneys, physicians, teachers, and nurses. It is suggested that first borns are responsive to parental expectations and cultural values. The unconventional careers like creative artists were found to be more characteristic of second borns.

Recent evidence on effects of sibling position on career development is lacking in Indian literature. The reason may partly be attributed to the small family norm in cities which diffuses the birth order situation as being influential in career preparation and entry. Hence just how much influence the birth order can exert on the highly complex process of career development is more of a conjecture.

### *Family Functioning*

The family system operates through a structure of roles, facilities for family members to exist and grow, a network of relationships, and a pattern of communication. The significant people in the family system exert influence on career orientations, values, self concepts, and career development in general (Ginzberg, 1961; Super, 1957; Holland, 1985; Roe, 1957; Roe and Lunneborg, 1990). The changes in the nature of family organization and relationship ideals, and expectations about family functioning have produced important effects on the all round development of children including career related behaviours. The role of the family as a social unit influencing career behaviour is more significant in terms of imparting interpersonal skills in so far as they

are part of success in occupations. The family relationship includes factors such as parenting styles, parental support, parental modelling, etc. Studies in the West (Schulenberg, Vondracek, & Crouter, 1984; Vondracek, Lerner, & Schulenberg, 1986) have demonstrated a positive (and linear) influence going from parent to the adolescent regarding these parental factors and career development.

The concept of family functioning grew out of family systems research on mental illness. Basic propositions of family systems theory (Penick & Jepsen, 1992) are that the family, operating as a system or unit, evolves characteristic patterns of relationship such that change in any one of the family members will produce change in all other members and that the primary focus of mental health resides within the family rather than in the individual. Family systems researches, therefore, focus on such behavioural and structural features of the family as communication, conflict, and organization. Walsh (1982) defined family functioning in terms of the judgement of the usefulness of the structural or behavioural patterns of the family in achieving objectives. These judgements are usually based on the achievement of family tasks such as the successful development of the child in various areas as physical, intellectual, vocational etc. Using the family functioning scales (Bloom, 1985) and some measures of career maturity, Penick and Jepson (1992) showed that family members' perceptions of whole family unit interaction explained more variance in vocational identity than other control variables like achievement, gender, SES etc. Family's developmental tasks according to Duvall (1977) include, among other things sharing the responsibilities of family living and bridging the communication gap between generations. Developmental tasks for the parents of the adolescent, according to Duvall, include believing in their adolescent children, helping them gain self-confidence and establish their personal identity, self-concept, and building a good relationship with them.

The role of parenting style and family interaction has also been suggested to be important in the development of autonomy in adolescents. Indian youth, as Garg and Parikh (1976), and Poole, Sundberg, and Tyler (1982) revealed, was subjected to demand for obedience and lesser opportunity for acting autonomously. Generation gap in occupational aspirations of adolescents themselves and their

parents was discovered by Gangrade (1975) due to differences in occupational values and lack of inter-personal communication.

Yet another important contribution to understanding and relating parental attitudes of acceptance and rejection in childhood to adult personality and behaviour patterns has been suggested by Roe (1957, 1990). She contended that based on early experiences of emotional need satisfaction or frustration, people developed orientations 'towards persons' and 'not towards persons' which eventually got related to career choices. Roe used empirical evidence collected through case studies of physical and social scientists and creative artists. In India, some evidence on the influence of family as a psycho-social unit on development of career choices has been obtained by Sinha (1978) and Jogawar (1976). Earlier Super (1957) postulated that the family was an important influence in the development of a child's vocational self-concept.

A new dimension to parental intervention in career development of their children has been researched by Young & Friesen (1992) who used 'intentional action' (Bruner, 1986; Chapman, 1984) as a paradigm for psychology. The main assumption is that parents engage purposefully in their interactions with their children, and their actions are guided by 'mentally represented intentions' (Heckhausen & Beckmann, 1990). These actions have cognitive and affective components. The usefulness of the construct of intentional action was earlier suggested by Brandstädler (1984) who believed that individuals, on the basis of certain developmentally related expectancies, values, and control beliefs, actively influence and try to control their own development. From this perspective, parents in their interactions with their children attempt to enhance their own development as parents by assisting the career development of their children. Young and Friesen's study using 'Critical Incident Interview' (Flanagan, 1954) arrived at 10 categories of parental intentions viz.; skill acquisition, acquisition of specific values or beliefs, protection from unwanted experience, increase in independent thinking or action, decrease in sex-role stereotyping, moderation of parent-child relationships, facilitation of human relationships, enhancement of character development, development of personal responsibility, and achievement of parents' personal goals.

'Parental intentions' have not been studied in India in the sense discussed above, but parental advice and expectations have been the subject of study (Shukla, 1962; Srivastava, 1972; Shah, 1986). Shukla gave inconclusive evidence regarding influences of parent's advice and Shah concluded that self-interest of students of Arts, Commerce, and Science streams was significantly higher than either parents' advice or any other reason. Srivastava found fathers' expectations about their sons' occupational placements higher than the latter's own choices. The fathers' suggestive behaviour with regard to girls changed as they grew older. The evidence suggests that direct intervention of Indian parents is not much reciprocated by children.

Indirect or unintentional intervention (Sinha, 1978), if at all, needs to be investigated in the framework suggested by Young and Friesen. It appears, however, that sex-role and occupational-role socialization is more incidental and unintentional than otherwise, and is an important determining variable in adolescents' development of career and life perspective.

### *Family Background*

The family provides the primary setting for overall personality development. Vocational sense, career orientation, and other dimensions of career maturity are linked to the family situation as determined by geographical, social, cultural, and other factors like socio-economic status, (consisting of parental educational and occupational background), vocational environment, value and belief system of the family, parental aspirations regarding the child's future career, vocational stereotypes, etc. Such familial influences on the behavioural outcomes mentioned above as also the development of self-identity, vocational self concept, self-efficacy beliefs, and career search and entry behaviour have often been researched and interrelationships established.

### *Genetic Factors*

The contribution of genetic inheritance in development of cognitive and affective qualities has been amply emphasized by Roe (1957, 1990), Super (1990) and Holland (1985) in their treatment of the subject. A great deal of evidence in the West has accumulated with regard to the familiar influences related to genetic and background factors (Roberts and Johansson, 1974; Loehlin and Nichols, 1976; Nichols, 1978; Grotewall et al., 1977; Deborah et al., 1994).

It is held that heredity sets limits on development of abilities, potentialities, and interests. Temperamental qualities such as interests and preferences are more amenable to finding channels due to experiences in the family (Roe 1990). It is contended that creativity, talent and special aptitudes, too, when combined with the 'right' set of environmental and experiential circumstances determine the main course of life, occupation being an important aspect. Further, physiological factors such as race characteristics, body build, metabolic rhythms, and a multitude of others are inextricably linked with personality development, expression, and effectiveness.

*Cultural Background Factors:* The family is primarily responsible for the physical, social, and cultural conditions under which a child lives and acquires most of the experiences of life. Within the family, parents contribute specially through display of their habitual behavioural patterns. Their techniques of handling children, their religious, moral, and social values, sex-role socialization and occupational stereotypes go a long way in the child's development of ego-identity, work-role identity, and acquisition of career planning skills and competencies. Parental encouragement comes through enrichment activities, achievement aspirations, and demands for excellence. The value placed upon manual and intellectual work, and educational goals and competencies have been generally seen to be associated with socio-cultural background. Family culture is inextricably mixed with the geographical placement of the family, the social class affiliation, the caste, and the religion. Tribals, scheduled castes, slum dwellers are unexposed and inaccessible to the socio-cultural and economic advancements and means of communication. The Government of India is now making special financial allocation to create and enhance educational opportunities for them. Efforts have been made through Satellite Instructional Television Experiment (SITE, 1975-76) to bring about large scale changes in attitudes and behaviour related to rural development. Positive gains among children in the area of language development and in attitudes of seeking knowledge and information from sources other than classroom teaching (Sinha, 1986) have been noted as an outcome of SITE. Positive perceptions of utility of education to go with high level of occupational aspirations among both tribal and non-tribal students and parents have

been reported (Sharma, 1990) though their attainments are said to be affected by cognitive deficits like slow learning ability. Their occupational aspirations are affected by geographical location and vocational environment (Passi, 1970; Grewal, 1980; Chandeval, 1983). Educational and career aspirations of adolescents coming from these disadvantaged classes and communities have been boosted up following the Government's policies of relaxation of admission criteria, reservation of seats, and availability of educational facilities. Striving towards upward social mobility among these communities has been indicated in recent years (Thyagaraja, 1986; Akhilesh, 1991; Mehta et al 1993). It is obvious that introduction of any kind of stimulating and enriching components in their socio-cultural environment facilitates their aspirations.

*Socio-Economic Status:* Among the family background factors, Socio-Economic Status (SES) is seen to have the most pervasive influence on the life style of its members. Its impact on life perspective, time-perspective, life skills, cognitive and personal styles, self-concept, success and failure orientation, motivational patterns, career-orientation, and achievements have been discussed in general. The SES is a composite of a number of variables of relevance. The Western attempts at formulating such measures have made use of indices such as family's income, wealth, values and beliefs, father's education and occupation, house type, etc. (Centers, 1949; Edwards, 1943; Warner, 1949). In India some of the well-known scales are available (Jalota, Kapoor, Pandey & Singh, 1970; Kuppuswamy, 1981; Rao, 1977, etc.) which have made use of these indices in an effective manner.

Values in general, work values in particular, and associated behaviours like career interests, preferences, career aspirations and attainments have been shown to be a function of SES through researches conducted on various sections of society in our country. (Yadav, 1979; Roy, 1978; Chand, 1979; Reddy, 1977-78; Reddy, 1974; John, 1981; Tomar, 1985; Dabir and Pant, 1988; Toong, 1982; Gaur, 1973; Bhatnagar, 1983; Sinha, 1986; Shashi Prabha, 1982; Gupta, 1986, 1991; Mehta, et al, 1987).

*Motivational Context:* The motivational context consisting of cultural ethos, vocational environment, work values and attitudes, parental educational and occupational placement, their ambitions and

aspirations is a potent influence in consolidating or inhibiting the progress of children in educational and vocational spheres. A child of uneducated parents, as observed by Cyril Burt (1961), knows astonishingly little of any life except his own. Such parents, he holds, have neither the time nor the leisure, neither the ability nor the disposition to impart what little they know. A motivating cultural and vocational context has been found related to a number of career planning variables in India. (Grewal, 1971; Parliker, 1973; Reddy, 1974; Chadha, 1979; Sharma, 1975; Pandliker, 1977; Sinha 1978; Chand, 1979; Nundy & Swaminathan, 1983; Mehta, et al, 1993).

It may be pointed out that various kinds of familial influences such as cultural, motivational, and socio-economic overlap considerably. Variables like values and beliefs, monetary position, and attitudes and expectations towards careers compose a complex of subjective and objective background influences, and need to be interpreted in relation to each other.

### **EDUCATION**

Education has been conceived to be a vehicle for enhancing the quality of life of individuals and economic growth of a country. Education develops manpower for different levels of the economy (NPE, 1986). Education enhances employability and work proficiency. Benavot (1989) contends that education increases the level of cognitive skills possessed by the work force. He emphasizes the role of basic literacy and numeracy in augmenting the productivity of workers in low-skill occupations and that of logical reasoning and technical and specialized knowledge in the productivity of workers in high-skilled or professional occupations. Education, from this point of view, becomes an important intervening variable in youths' strivings towards occupational goals. The course they will pursue will also depend upon their relationship with the existing work structure, and the potential for future expansion in that structure. The instrumentality of general education and vocational/technical courses in enhancing employability has been established (Shukla, 1962; Bhargava and Singh, 1968; Vasantha, 1971; Desai, 1974; Cook and Singh, 975; Varghese, 1989). Some of the other important variables guiding curricular choices have been identified as the type of educational set-up (Gupta, 1975) and

intrinsic factor or interest in the subject (Dalal, 1975; Das Gupta, 1975; Kher, 1975; Tiwari, 1975; Singh and Upreti, 1975; Wali, 1975; Shah, 1986). The nature and size of the educational system and educational policies have from time to time in the history of India, determined the type of links between education and the rest of the social life including the vocational sphere. The educational system in the Pre-British period (Saiyadain, 1973) was an indigenous Hindu educational system of 'tols', and 'pathshalas' and the Muslim 'maktabs' and 'madrasas'. These provided the equivalence of the elements of modern primary and secondary education. There was no link between this educational pattern and the occupational preparation. Even the secondary schools established during the British regime were there to teach the English language, science, and the western literature only.

This system was modernized to pave the way for the present educational system with the coming of Wood's Despatch of 1854. It recommended that the Government's efforts directed exclusively to the education of higher classes, should be geared towards diffusion of knowledge among all classes of people, so as to democratize education. The schools were to provide more opportunities for the acquisition of such an education to enable people to become useful members of society which, incidentally, would include enhancement of their earning capacity. Hence during a few decades in the mid-century, due to the Government's multi-pronged strategies to bridge the gaps between education and occupations, the career-oriented youth were indirectly assisted in finding vocational channels. The Government also planned to generate manpower in consonance with the human resource needs of the country. For example, the goals of universalization of education required an enormous number of primary school teachers. In order to meet this demand, a sizeable number of secondary school passed-outs were shifted to teaching positions in primary schools. Similarly, requirements of middle level trained manpower for extension, craftsmanship, surveys etc. has been increasing.

The Wood's Despatch also contemplated the provision of pre-vocational courses at the secondary level. But it was only with the coming of the Hunter Commission (1882) that adequate attention was paid to the introduction of vocational courses intended to prepare students for various walks of life and not just training in 'mental

'discipline' to profit from liberal and professional instruction. The Commission advocated producing educated labour in all branches of commercial and industrial activity. The vocational bias was recommended also for the intermediate colleges. Paradoxically, the expanded educational facilities resulted in educated unemployed in big numbers, specially in white-collar jobs.

Interest in vocational and technical education was further strengthened by the Sargent Report (1944) which visualized vocational bias in education at a rather early age. Such education was recommended to be provided in senior basic schools on completion of junior basic course. The passed-outs of senior basic schools were expected to join the semi-skilled labour force or go to junior technical, trade, or industrial school for a further full-time training of two or three years to become skilled craftsmen. Vocational education subsequently got impetus on the pursuance of the vocation-linked objectives of education during the 50s and 60s on the recommendation of Mudaliar Commission (1952-53) and Kothari Education Commission (1964-66). The former recommended the "provision of diversity of educational programmes to suit the varying aptitudes, interests, and abilities of children that begin to show up at the end of compulsory elementary education". The two-year vocationalization of education was introduced at the senior secondary school stage at the instance of the Kothari Commission. This scheme revolutionalized the school education system to give it a fresh look, to divert a significant number of school goers to education with a stronger vocational bias, and to cultivate a closer relationship between education and the life of the people. It was at this time that a large number of Industrial Training Institutes were also set up. The vocational courses were expected to cultivate skills in producing saleable and marketable goods and in making the passed outs self-sufficient. Self-employment was a significant target career motive to be induced among adolescents about to enter the world of work in order to deal with the problem of educated unemployment. Corresponding to vocational preparation, the Government, through its nationalized banks, provided financial support by giving loans to aspiring youth to save them from facing unemployment or underemployment. The low and middle SES groups perceived these courses as providing healthy career avenues, though the

students from well to do homes avoided these avenues, much in line with what Griffin & Eros (1970) observed saying that Indian society appears to be contemptuous of technical training and having low regard for vocational education while favouring classical literary education and higher mathematics as a means of escaping manual labour. Contrary to this thinking, however, in a study (Mohan, Gupta & Jain, 1990) conducted on vocational students at the NCERT, New Delhi, a stronger preference for vocational courses related to commerce has been shown by middle SES group parents than science-related courses, and these courses were found to be instrumental in achievement of their sons' career goals. As for the vocational boys and girls, both the groups equally vehemently showed positive attitude towards the role of vocational courses in preparing their educational and vocational plans for the future. They regarded these courses to be job-oriented and leading to economic self-reliance.

Nevertheless, distinction between mental and manual work has been established in our country rather explicitly. There is this strongly nurtured notion that mental work is superior to manual work in quality, and that 'controlling the production' rather than 'producing' is more prestigious. The feeling is strong in the minds of parents and children alike. At higher levels of education, technical, professional, and management education is considered to be more prestigious, though entry into these courses is limited due to various reasons such as scarcity of facilities, higher level of aptitude and skill required for entry, financial implications, duration of courses, etc.

To deal with the problem of unemployment of the masses who fall short of a degree in professional/technical courses, the NPE 1968 has proposed de-linking of degrees from certain categories of jobs and refashioning of job-specific courses to facilitate the entry of such aspirants into the world of work. There is a concomitant provision for a machinery like National Evaluation Organization to determine the suitability of candidates for specific jobs. It is hoped that this move will reduce the educated unemployment, help the youth realize their potential, and ease the employment situation in due course.

The popularity of professional-technical-vocational education in India has been found to be related to the stage of education as per NSS surveys, the ratios of general education to vocational education

improving considerably from high/higher secondary stage through post-matric to degree courses. Over the period from 1971 to 1987 the ratio between the two types of courses at high/higher secondary stage ranged between 16:1 and 17:1, for post-matric stage between 2:1 and 7:1, and for degree level courses between 4:1 and 5:1. The reason for lesser proportion of students in technical courses may be attributed to lesser facilities for technical courses and the general craze for white collar jobs checking the entry of youngsters into skilled and semi-skilled training which prepares them for manual jobs. The reason for a closer relationship between the two types of courses at higher stages of education may be, one, that professional courses are more prestigious and, two, that the institutions of higher education in technical/professional areas are relatively greater in number at degree and diploma level. The degree level engineering courses have increased from 134 in 1971 to 351 in 1991. The diploma level engineering courses have increased from 301 in 1971 to 910 in 1991. The institutions providing courses in Allopathy have gone up from 95 in 1971 to 198 in 1991, while the courses in Dental Surgery have gone up from 15 in 1971 to 54 in 1991. The overall rate of growth of higher education in India, instead, came down sharply from the mid-seventies i.e. from 11.6 in 1970 to 7.7 in 1975, and as low as 2.4 in 1980. The reason for the decline has been attributed to the Government's policy of "consolidation rather than expansion" (Varghese, 1989). Varghese also discusses the question of accessibility of these institutions of higher education to urban and rural folk. Though the urban elite usually have easy access to these institutions, more and more institutes were opened in the semi-urban areas. Consequently, more and more rural elite now find their way into these institutions and prepare themselves for parallel high level technical/professional occupations. Further, the Government formulated the policy of protective discrimination and incentive schemes for the backward castes to take advantage of these programmes and facilities, and consequently they are now seen to be aspiring for higher level occupations.

Though attempts have been made by the Government to change the elitist nature of higher education, the greater number of rural folk are still not entering these institutes of higher education. Varghese believes that our school stage education needs to be more strongly rooted to

enable the masses to have access to higher education. In the employment market, the demand for higher education, regardless of the requirements of job has been seen as a phenomenon of qualification inflation, particularly so in general education based jobs (Prakash & Varghese, 1987). People aspire for higher education as the modern sectors of economy provide high wages and stability of employment, as compared to traditional and unorganized sectors. Lack of education has been seen to be a strong factor in unemployment.

The Government's plans to expand facilities for higher education are reflected in a speech by the former Union Minister of Human Resource Development Shri Arjun Singh (1994) when he announced that "Government is making conscious efforts to expand facilities for higher and professional education to make it accessible and affordable to all sectors of society". He further reiterated that education is a vehicle for the fulfillment of the aspirations of the traditionally disadvantaged segments of our society and that there is a need for harmonizing the educational system with the changes taking place in the socio-economic environment. Impact of education on the quality of life, as perceived by Mitra (1989) is not visible. He believes that the educational system is isolated and alienated, as a result of which insecurity, inadequacy, and uncertainty have occurred. Expansion of higher education, it is observed has indeed been accelerated due to the role it has been assumed to play in the economic development of the country. From an individual's career point of view, education does not equip for job-specific skills, or enable persons to find appropriate jobs. The problem of unemployment, under-employment, and mal-employment of higher educated persons has assumed large proportions. The census reports, the NSS, the live registers, and the follow up surveys of graduates conducted by the DGE&T all indicate huge educated unemployment. Higher education is still in demand due to the associated social status, awakening among rural masses, disappearance of "old" job values (specially the manual ones), wage differentials, lack of jobs at lower level and cheap/free higher education in the opinion of some experts. It is further believed that because higher education, in the third world countries is usually free, this produces a bulge of university graduates who are 'over-educated' for the jobs they end up doing — work which requires skills learnt primarily on the job, while the formal

education served largely to enable the person to enter the job. The advent of vocationalization of education and the non-formal education has, however, influenced the job entry. The nature of unemployment has been found related to the social class, the more highly schooled (high social class) reveal more unemployment as compared to less schooled (lower social class). Again, the highly schooled are unemployed in the beginning of their careers during the *job-search* but later find jobs which are stable *career-type*.

## WORK

As a social structure affecting career entry of young aspirants, work structure includes the variety of work enterprises, occupational divisions into fields of activity\* and levels of functioning\* determined by the required level of responsibility and academic and professional preparation to assume the responsibility. The generally understood levels of functioning are professional and managerial, semi-professional and clerical, skilled, semi-skilled, and unskilled.

### *Pre-and Post-Independence Indian Economy*

The popularity of an enterprise and/or the occupation in the work structure goes hand in hand with the state of economy at a given period of time. Historical antecedents of work structure are available in the thoughts of Kautilya, the renowned Indian economist of ancient India. Kautilya recognised agriculture (Krishi), cattle tending (Pusupalaya), and trade (Vanijya) as the three principal vocations providing people with the means of livelihood. Stress was also laid on mines and manufacturing industries. Indian economy has undergone radical changes, some under the influence of foreign invaders and others due to the internal political and socio-economic situation. With the coming of the British rule, the Indian economy was severely marred and remained predominantly agrarian till the end of it. The urbanisation was at a low ebb. The non-agricultural sector was small having trade, money-lending, transport and communications, administrative, defence and social services, professional services, personal services etc. Large scale industrial activity like the modern metallurgical engineering, building

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\* Discussed in Chapter 10.

material, chemicals, petroleum industries were insignificantly developed. The per capita income was low and unequally distributed. Illiteracy, underemployment unemployment, caste and class oppressions were rampant. The post-independence scene had the successive five-year plans to deal with the unemployment problem as their foremost development priority. The Indian economy improved with the unprecedented industrial and technological development taking place. A great deal of diversification in the industrial sector took place, too. The country has created a sizeable base of modern industries including construction materials, metals, machine-building, electronics, chemical and petroleum industries. On the employment front, these industries have opened up vast vistas and opportunities. Automation, on the other hand, has eliminated jobs requiring manual work and human control where greater numbers got employed. There has been upgrading of requirements of certain jobs, increasing the number of jobs requiring well trained persons. There has also been a shift from production of goods through manufacturing, agriculture, and construction to production of services in transportation, trade, finance, insurance, real-estate, and personal services etc. Within manufacturing, a lot of emphasis has come to be laid on articles of gold, silver, steel, wood, cotton, and textiles.

The Government's efforts to revolutionize industry have been stated in successive industrial policy resolutions after the Independence. The policy resolution of 1956 laid emphasis on rapid industrialisation, with high priority to heavy industry. Gulati (1978) observes that the tempo of industrialization in India has been outstanding in the 50s and 60s with a network of Industrial Training Institutes having been set up to produce more and more craftsmen and production workers. The self employment opportunities in small scale industries motivated persons from middle and upper-middle classes, too, to avail of these training institutes. In the urban sector in general, the employment policy aimed at accelerating the tempo of industrialization, the development of capital and heavy goods sector, and defence industries, if necessary with imported machinery, and by transfer of technology supported by local skills and resources; and as an employment multiplier, development of small scale and cottage industries and an expansion of other labour-intensive industries.

Consequent upon the policy resolution of 1977 the Indian private enterprise established itself with regard to heavy industries, in addition to traditional fields of textile, sugar, vanaspati industries etc. though the overall emphasis of this policy favoured cottage and small scale industries. The non-agricultural enterprises increased with a predominance in the unorganized sector. The organized sector accounted for eight per cent of the total employment, over 60 per cent of which is contributed by the public sector. The new economic policy in 1991 sought to apply the policy of liberalisation of the economy, inviting the private sector participation in important areas and globalisation to break down barriers to movement of goods, services, capital and technology between India and the rest of the world. The participation rate in the public sector at this time had gone up (1AMR, 1993-94).

### *Employment Situation and Trends*

In a given economy, the human resource is utilized to the extent that the industries and occupations have the capacity to absorb it. Career destinies, and job search and entry behaviour of young aspirants are much more importantly linked with the employment potential of the country. Given a set of personal-social factors which provide necessary dynamism in job-seeking behaviour, the external employment situation, the variety of job enterprises, the shortage occupations, the surplus occupations, the state of traditional and upcoming industries, the Government's policies regarding different sectors of economy such as rural-urban, private-public, organized-unorganized, etc. and the international trade policies are the deciding factors. The social factors traditionally valued have been job security, stability, and remuneration. In recent years factors like glamour, power, and status have come to occupy a much more important place in the hierarchy of personal preferences of individuals and certain careers have been definitely associated with these values. In an all India survey conducted by MARG (TOI, 1995) 50 per cent of the youth revealed that they preferred joining the private sector most of all, followed by civil services, the public sector, and the defence services in descending order of importance. Money was given as the foremost reason for selection of career by the youth, the parents, and the teachers alike. Power, status, and prestige, occupied an important place in the choice of civil

services. If the employment rate in a sector of economy is any indication of its popularity, it may be interesting to analyze the figures in various sectors of the economy. Scrutiny of overall employment statistics of the country over the past few decades shows that out of the total estimated population of 567 millions in 1973, the working force consisted of 106 millions and 41 millions of rural and urban population respectively. The non-agricultural workers comprised 63 per cent of the working force of which 28 per cent were rural and 35 per cent urban. Over the fifteen employment-year period by 1988 the total population increased to 790 million. The work force then consisted of 257 millions rural and 68 million urban population. The non-agricultural figures of rural-urban population were 56 and 58 per cent respectively. It is obvious that the rural-urban ratio in this sector has shown an improvement over the years. The shift of rural workers to non-agricultural enterprises is apparent. The male-female work participation rate was 158 millions and 79 millions in 1973 which rose to 217 and 107 millions respectively in 1988. It can be seen that the female work participation in both 1973 and 1988 was roughly 50 per cent of the male work participation. Female participation in the non-agricultural set up was 13.5 millions in 1973 which rose to 24.2 million in 1988. The increment rate of women work participation was the same as that of men.

The general employment situation of rural and urban, males and females has remained constant from 1973 to 1990, as per the National Sample Survey (NSS) survey. However, changing employment trends with regard to diverse sectors of the economy are noted. A decline in the incidence of agricultural enterprises in rural-urban and males-females, and a rise in non-agricultural enterprises has been indicated. Employment in mining, manufacturing, construction, trade, transport and services has gone up among rural males as well as females. Urban males, on the contrary, have shown a decline in manufacturing and services accompanied by a rise in construction, trade, and transport. Urban females like their rural counterparts have shown a rise in manufacturing, construction, trade, and services. The greater tendency to enter non-agricultural areas has been attributed (Vaidyanathan, 1994) to the tendency of those who cannot find employment in agricultural, to take up any kind of non-agricultural occupation.

### *Employment Situation by Occupation*

The distribution of working force by occupational division as indicated by NSS statistics has revealed that the maximum employment of rural working force was in farming and fisheries in 1978 and minimum in administrative and managerial fields. In 1988 the employment in farming and fisheries had gone down considerably, whereas it has increased in clerical and production fields. It appears that rural workforce is migrating from farming to clerical and production occupations. There is a marginal increase in the incidence of professional, technical, sales, and service workers. The scatter of urban statistics shows that the maximum employment in 1978 was in production and the minimum in administrative-executive and managerial fields. The latter, however, increased substantially by 1978. Farming and fisheries showed a decline in the working force. The employment rate in urban professional-technical and sales occupations has gone up only marginally and the employment status in clerical, sales, and production occupations has not changed.

The relationships between educational level and employment as revealed by NSS findings of 1981 have shown that the maximum number of graduates were employed in professional-technical fields followed by clerical, administrative, sales, farming, and production, in descending order. The maximum number of secondary passed-outs were employed in farming and fisheries followed by production, clerical, professional-technical, and sales, in descending order. The group of middle school passed-outs were mainly engaged in farming and fisheries followed by production, sales, clerical, and administrative occupations, in descending order. The literates up to primary and illiterates are engaged in farming and fisheries and production followed by sales and service occupations. A close relationship between the educational level and the occupations categorized as white collar or blue collar is indicated. The popularity of self-employment as an economic venture has increased. Vaidyanathan notes that in the urban areas the extent of self employment has risen progressively among males. This has brought about a reduction in wage labour. The NSS data have shown that employment opportunities have also grown fast enough to absorb the increments in labour force. At the same time, a progressive fall in employment rate in rural areas and rise in urban

areas is noted, though the rural economy has shown commercialisation associated with trade, transport, farm products, and the integration of village into the wider market economy. The number of rural workers having employment in traditional rural industries like hand-spinning, leather, earthenware has declined. Estimated employment of rural workers in relatively modern industries like rubber, plastics, chemical and metal products has risen faster than the total employment in industry (Vaidyanathan, 1990; Bhalla, 1993).

Of major concern from an individual's career development point of view is the job situation and job entry of educated masses between the age group 15-25 years. The NSS of employment and unemployment has revealed that the worst affected age group was 15-29, both rural and urban. The total number of matriculates have risen eightfold from 1961 to 1988 (Visaria and Minhas, 1991), while the total number of matriculates and above has risen tenfold. Majority of educated workers in rural areas are self-employed while in urban areas, they work for wages. Income-wise, the educated employed having a regular wage/salary are better off than their less educated counterparts. Also, those working in the organised sector have more secure and better paid jobs as compared to educated persons with casual wage employment.

The employment situation in general in India changed 1970s onwards consequent upon the government adopting special measures to alleviate the conditions of the poor and the unemployed (Vaidyanathan, 1994). 'Garibi Hatao' was the centre-piece of the government policy having special employment schemes as an important component of this programme. The movement caught up momentum during the Sixth and Seventh Plan Periods (1980-90). A scheme for providing self-employment to educated-unemployed youth in industry, business, and service sectors was announced during this period. The scheme provided loan facility to persons between the age group 15-35 years. The government also started special 'Anti-Poverty Employment Programmes' like Integrated Rural Development Programme (IRDP), National Rural Development Programme (NRDP), the Rural Cavellers Employment Guarantee Programme (RCEGP), and the Jawahar Rozgar Yojana (JRY). The JRY was expected to generate additional employment of nearly 870 million person days a year. The Eighth Plan

envisioned further expansion of these special employment programmes, increasing the hopes of a sizeable number of youth to find employment.

Thus, the job search process is guided by a complexity of factors in the work structure and the employment market, including the variety and number of openings, facilities for training for jobs, physical accessibility to job openings, the Government's economic reforms policies, the population statistics, the predominance of rural or urban sectors, available manpower and labour force in various industrial enterprises and the occupational fields, etc. The role of manpower planning is amply recognized in improving the job situation by bringing the available human resource and the work structure together, in avoiding the pitfalls of mismatch, and in including positive and constructive career entry behaviours among the youth by providing information on the manpower needs.

To conclude this chapter, careers in India are traceable to division of society into four 'Varnas' and allocation of people to one of these Varnas decided by birth. This also set limits on divergence in career aspirations and entry. Work adjustment was more of intrinsic satisfaction found in one's craft creation. Social reforms introduced at various levels have enabled dropping of caste hierarchy. Socio-economic and occupational variables in relation to career choices and development have become more important. Family has now a different role to play. Family is more significant as a social situation responsible for early exposure in self and career development. Family structure, family functioning, and family background factors operate in determining personal-social and work values.

The other important social structures are 'Education' and 'Work'. Education has been conceived to be a vehicle for enhancing the quality of life. It is directly related to one's placement in the world of work. Educational structure in India has evolved from one of the indigenous Hindu educational system of 'tols', and 'pathshalas' to democratization and diffusion of knowledge to enable people to become useful members of society. Various education commissions have introduced vocational and technical components and the balance between general education and vocational education has been improving over the years.

As a social structure affecting career entry of young aspirants, work structure includes a large variety of work enterprises and occupational divisions. Significant changes in our work structure have taken place due to industrialization, urbanization, and the Government's economic policies. Entry into careers for aspiring youth have also been changing due to these factors and due to changing aspirations and life values.

In the end, career development is the process of assimilating the extraneous situation consisting of social structures of family, education, and work with the self and the self-concept and brings about changes in one's personal-social and vocational situation.

## Chapter 4

# THEORIES OF CAREER CHOICE AND DEVELOPMENT

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In Chapter 2 it has been maintained that counselling theory and practice are interrelated and that practitioners need models to devise their strategies to work in career counselling situations. Theories have been formulated to explain why and how people choose careers and enter them. They cover various aspects of career decision making/career development process. Social scientists and particularly counselling psychologists have had major differences of opinion, however, regarding the philosophical underpinning of career development theories. Theorists belonging to the early phases of this movement have been greatly influenced by the position of logical positivism taken by the physical scientists which, in brief, assumes that people can be separated from their environments for study; that human behaviour operates in a lawful linear fashion and can be objectively measured; and that the observable actions of human beings regardless of contexts should be the focus of inquiry.

The modern social scientists (Brown & Brooks, 1990, P. 11), on the other hand, suggest the adoption of a phenomenological approach. This approach assumes that human functioning cannot be reduced to laws or principles and human behaviour can best be understood in the context in which it occurs and hence a subjective frame of reference of human beings is the legitimate source of knowledge.

Theories as models of human behaviour can be judged for their adequacy and value. Ideally, a theory should serve as a guide to practice as well as generate research. A number of criteria have been advanced to evaluate them (Reynolds, 1971; Snow, 1973). The criteria discussed by Brown & Brooks (1990, P. 338) are presented in brief here:

1. *A theory should explain important phenomena:* In general a theory should have relevance to life events. Specifically, the events explained by a career theory should relate to the career decision making process. It should also stimulate research.
2. *A theory should explain past and future findings, as well as observations that are already known at the time of its statement:* A theory should be subsumptive. It must be able to account for empirical findings that have appeared since their publication. It must also be able to account for data that may be generated in future using this theory.
3. *A theory should be comprehensive:* A theory of career development should predict and explain the behaviour of many target groups among the population such as the rich and the poor, rural and urban, young and old, men and women, and minorities as against the mainstream etc.
4. *The terms, constructs, and nature of the interrelationships between and among propositions of a theory should be clearly stated:* The terms and constructs included in the theory should be defined in simple but comprehensive and operational terms so that they can be effectively used to explain the choice phenomenon.
5. *A theory should be parsimonious:* The theory should be simply stated using terms and postulates in the most succinct fashion, and illustrate their ideas in the most straight-forward manner.
6. *A theory should be heuristic:* A theory should be liable to verification through clinical and empirical research. Therefore, it follows that a theory should have good operational definitions and logically related postulates.

7. *A theory should allow for understanding, prediction, and eventually control:* In the field of career development a theory should enable counsellors and psychologists to predict important events such as initial career decision making, intervening influences affecting career adjustment/crises and change/stability in career etc.
8. *A theory should provide a guide to practice:* A theory should be substantiated by established "facts" to provide support for its efficacy. The implications of the theory for practice should be made explicit.

Various emphases and approaches have been adopted to explain how and why people choose their careers. Crites (1969) draws a distinction between non-psychological and psychological approaches. The non-psychological theories of vocational choice attribute choice phenomena to the operation of some system which is external to the individual. The individual, accordingly, enters an occupation solely because of the operation of environmental factors such as chance factors, the social forces, and the economic forces such as laws of supply and demand. In contrast to the belief in chance factors but equally inadequate are "impulse theories" which attribute the choices solely to internal factors. In so doing they overstress the role of impulses and overlook reality factors. The scientifically developed psychological approaches, on the other hand, deal with the role of such internal factors as one's abilities, interests, personality, attitudes, and other personal-social and ecological factors. According to Ginzberg et al (1957) a comprehensive theory of occupational choice would have to provide an analysis of the internal elements which so largely condition the responses of the individual to external forces. Individual *per se*, according to Crites (1969), is the crucial variable in the vocational decision-making process.

In this chapter, some of the established psychological theories, each having a more or less independent emphasis will be presented and discussed.

### TRAIT-FACTOR THEORY

In both vocational psychology and vocational counselling, much of what is known and used today has been contributed by trait psychologists. Some of the original factor theorists who influenced thinking about vocational psychology are Frank Parsons (1909), C.L. Hull (1928), and Harry D. Kitson, (1925). The trait-factor model was the first structural theory of occupational choice-making to emerge. Within this model several special approaches have developed over the years.

Advocates of this theory have viewed career choice as a largely conscious and straightforward problem solving process. This approach assumes that a matching of an individual's vocational assets and liabilities like abilities and interests with the available career information can be accomplished and once accomplished it solves the problems of vocational choice and vocational satisfaction for that individual.

Traits are defined as patterns of reaction to stimuli. Freeman defines traits as "trait is a generalized mode of behaviour or form of readiness to respond with a marked degree of consistency to a set of situations that are functionally equivalent for the respondent. It is a form of adaptive or expressive behaviour employed by the individual in situations that he perceives as having some equivalence (generalization)". It has long been customary to speak of three "modalities" of traits: abilities or cognitive traits, temperamental traits, and dynamic traits or interests. The word factor began to be used interchangeably with trait although the former is only a statistical evidence that a trait exists. People differ in their traits and jobs differ in their requirements of traits. If the traits of people can be isolated and measured or quantified it will be possible to match people with jobs. The psychological traits are either inhibited or developed as a result of person-environment interaction. The closer the match between personal characteristics and job requirements, the greater the likelihood of success. Klein and Weiner (1977) summarize such assumptions underlying the theory as follows:

1. Each individual has a unique set of traits that can be measured reliably and validly.
2. Occupations require that workers possess certain very specific traits for success, although a worker with a rather wide range of characteristics can still be successful in a given job.
3. The choice of an occupation is a rather straight-forward process, and matching is possible.
4. The closer the match between personal characteristics and job requirements, the greater the likelihood of success (productivity and satisfaction).

The task of assisting in occupational choice making, then, is to match persons to jobs so that individual needs will be met and satisfactory performance will result.

According to Parsons' (1909) earlier formulation, a person goes through a three step process in choosing an occupation:

- (i) a clear understanding of himself — his aptitudes, abilities, interests, ambitions, resources, limitations and their causes;
- (ii) a knowledge of the requirements and conditions of success, advantages and disadvantages, opportunities and prospects in different lines of work; and
- (iii) a true reasoning on the relations of these two groups of facts.

In short, the individual makes an analysis of his vocational assets and liabilities and compares it with those demanded by occupations and selects the one he "matches" with best.

Thus vocational choice is largely a conscious cognitive problem solving process. Decision is arrived at through what Parsons has called "true reasoning". The assumption is that the individual knows both what he is doing and why he is doing it and that he uses this information in selecting an occupation.

Williamson (1965) emerged as the strongest proponent of the theory and suggested six steps in the process of career counselling based on the trait-factor approach viz; analysis, synthesis, diagnosis, prognosis, counselling, and follow up.

The trait-factor approach, achieving its apogee in 1940's gave rise to the testing movement. Thus a host of interest inventories, aptitude

tests etc. based on the trait-factor stream of thought emerged. Vocational counselling involved getting quantitative estimates of the counselee's traits and predicting his/her success in suitable occupations. D.G. Paterson, in particular, developed tests and other psychometric instruments that provided career counsellors with tools to conduct personal analysis required for wise decision making.

### *Evaluation*

The trait-factor approach started receiving heavy criticism in the 1960's. Doubts were raised regarding the adequacy of the concept of trait to describe personality. Critics wondered whether traits described personality in all its dimensions and test scores reflected inner properties of the individual. Doubts were also raised regarding the universality of meaning attached to different traits and the possibility of considering all traits in measurement efforts.

In the beginning, traits were assumed to be "enduring psychic and neurological structures located somewhere in the mind or nervous system". Based on this assumption psychologists believed that instruments could be developed to measure the intrinsic qualities of the individual. Anastasi, however, argued that traits "are not underlying entities or causal factors but descriptive categories". Anastasi and Tryon (1979) contend that traits are learned entities that have validity only with regard to a specific task or situation. If traits are learned entities they should change as new learning occurs. This raises questions about the stability and endurance of traits and the controversy is far from resolved. In spite of this the traits of greatest interest to career counsellors and vocational psychologists — interests, special aptitudes, and scholastic aptitude do seem relatively stable (Hogan & Solano, 1977).

Herr and Crammer (1979) point out that despite what the trait and factor approach has to offer — its statistical sophistication, testing refinement, and technological application, the resulting prediction of individual success in specific occupations has been rather imprecise.

According to Crites (1969), one of the chief weaknesses of the trait-factor theory is its failure to consider and define the universe of

variables that impinge on the occupational choice-making process and define causal relationships among traits and variables.

Secondly, propositions about the interrelationships that exist among traits with regard to occupational choice are also not developed. For example, what are the relationships among values, needs, and aptitudes and interests as they operate in concert to influence occupational choice.

Thirdly, the theory also fails to deal adequately with the choice-making process itself. Super and Bachrach (1957) contend that given that individuals make numerous decisions about their future occupations before they enter them, what are the trait-factor correlates of these decisions? Are the correlates different at different age levels or do they remain the same as the individual grows older.

Finally, critics also contend that occupational groups are too heterogeneous in their tasks and duties to identify the traits and factors which differentiate them.

Also, though the trait-factor theory has been claimed to be equally applicable to women, it suffers from problems of measurement in the case of women due to the inbuilt gender bias in many of the tools of career guidance. However, in recent years, attempts have been made towards removing this gender bias from existing tools, and guarding against this in the new tools.

The trait-factor thinking has, however, produced a rich empirically based literature. It provides the basis for much predictive work on job performance. Moreover, it has spawned untold number of scales, inventories, and tests that are used daily by career counsellors. Aspects of trait-factor theorizing have also been integrated into the theories of Super, Roe, and Holland discussed later in this chapter.

Thus in spite of its shortcomings, the trait-factor approach is adopted in much of the career counselling perhaps because of its pragmatic, straight-forward nature. The basic model has also been applied to personnel selection and placement in industry and to placement in educational settings.

## GINZBERG ET AL'S THEORY OF OCCUPATIONAL CHOICE

During the early phase of development of vocational psychology principles and practice, theoretical constructs and formulation of models centred around the notion that career decision making was done at a stage following the high school years. In marked contrast to this "crossroads" conception of vocational choice as a one-time event, Ginzberg et al (1951) put forward a theory in which they introduced the idea of developmental nature of choice in which past behaviour exercises the major influence upon present and future decisions. Choice, they said, is a process which transpires over a prolonged period of time. They identified a series of vocationally relevant decisions through which an individual passes in the maturation process before he enters the world of work. An individual never reaches the ultimate decision at a single moment in time, but through a series of decisions over a period of many years. In developing their framework, Ginzberg et al were particularly concerned to devise a method that would take account of the multiple factors, both subjective and objective, involved in career decision making of individuals. Ginzberg's theory drew wide attention and stimulated considerable thinking in the field of career counselling and development.

The basis of this genetic (biological) and developmental approach to understanding the career development was some indepth interview data collected on a cross-section of 91 adolescent boys and some girls of regular age-intervals. They all came from upper middle class families, were free from overt-handicaps, had an urban environment, and had an IQ of 120 or above. To establish the extent of generalizability of the theory some boys from low-income families were taken and comparisons drawn.

Ginzberg has been revising the theory initially proposed by Ginzberg et al in 1951. The first restatement of the theory appeared in 1972 (Ginzberg, 1972), and the second revision based on more feedback from research (Ginzberg, 1984) is a further enrichment of the basic tenets of the theory.

The contributions of this theory amounted to elaboration on two major aspects. Firstly, through a series of researches, the authors identified four significant variables viz. reality factors, the educational

process, the emotional factors, and the values which were deemed to be important in career choice. The reality factor causes an individual to respond to the pressures of environment; the amount and kind of education one acquires limits or facilitates the scope of career choices; the personality and emotional factors have important vocational implications; and the values are deemed to influence the quality of the choices made.

Second, Ginzberg et al have worked out their theory in terms of three basic propositions to explain the 'how' of career decision making.

The three major elements of the theory (Ginzberg et al, 1951) are: (1) it is a process; (2) the process is largely irreversible; (3) compromise is an essential aspect of every choice. They are discussed below in brief:

- (i) Occupational choice is a developmental process. It spans the entire period of adolescence from approximately age 10 to age 21. Each step in the process has a meaningful relation to those which precede and follow it.
- (ii) This process is largely irreversible. Each decision made during the process is dependent upon the chronological age and development of the individual. Moreover, once launched upon a process, the experience cannot be undone, for it results in investments of time, money, and effort; it produces ego involvement.
- (iii) The process ends in compromise between an individual's needs, interests, capacities, and values, and the realities which impinge upon him (e.g. opportunities). The individual must renounce to some degree the satisfactions which he might derive if he based his choice on a strong interest, a marked capacity, or a realistic opportunity. He must find a balance among the major elements.

The 1972 restatement of the theory was given as: *Occupational choice is a life long process of decision making in which the individual constantly seeks to find the optimal fit between career goals and the realities of the world of work.* With further improvements, the final statement of the theory given so far (Ginzberg, 1994) reads as: *Occupational choice is a life long process of decision making for those*

who seek major satisfactions from their work. This leads them to reassess repeatedly how they can improve the fit between their changing career goals and the realities of the world of work.

### *The Basic Process of Decision Making*

The basic process of decision making is possible to be analyzed in terms of three periods viz; fantasy, tentative, and realistic, ranging from age 10 to age 21. These periods are differentiated by the way in which the individual "translates" his impulses and needs into an occupational choice. The changes take place during the maturation process along the lines of increasing realism with due consideration of reality factors, a more developed time perspective, and independence from adults.

*The Fantasy Period (6-11 years):* The major feature of the early fantasy choices is their arbitrariness and lack of reality orientation. These choices are based on the child's desire for "function pleasure" i.e. to engage in work because the particular activity is conceived to be pleasurable. A little later, the emphasis on "results of work in terms of the advantages accruing to the individual himself/herself or to others close to him become important. There is also around this time the awareness in the child that he will have to work when grown up. There are pressures from parents and others to be concerned with the future. The child turns to parents for help, which is an important forward step in getting over the previously nurtured fantasy choices and wishes. Very often the child may not be satisfied with the solution offered and then he shows further signs of maturity to think that he must do something about it. He then, enters the period of tentative choices.

*The Period of Tentative Choices (11-17 years):* During this period of pre-adolescence and early adolescence, one is in search for an appropriate basis for one's choice and actively considers the factors that are important. During this time there is a change in time perspective. In the fantasy period, the future was simply "not now; later". The perspective now gets sharpened to recognize a continuum between present and future. There is greater realization of permanence of career decision making.

The tentative stage is divided into substages of interest, capacity, value, and transition. The *interest stage* is the time around eleven and twelve years when the child is beginning to recognize the need to identify a career direction. At first likes and dislikes serve as the major basis for choice. There is gradual awareness, however, that interests are changing. This is evidence of having gained some perspective on time and there is also the recognition of the need to assume independence from father in decision making though feelings of ambivalence prevail and decisions are difficult to make. In the *capacity stage* the preadolescent around the age of thirteen and fourteen starts weighing the capacities. There occurs an intensification of trends already present. There is also the recognition of the need for testing their capacities in the areas of their interests. A future self image emerges and there is a decrease in the degree of father identification as an influence in career choices. Closely associated is the further sharpening of time perspective and thoughts about career planning are focussed on specific periods during educational career. Educational process assumes a greater role in the preparation for work.

In the *value stage* around fifteen-sixteen years, adolescents become aware, for the first time, of the factors of goals and values. Of special importance now is the idea of service to society and the signs of choosing careers for humanitarian reasons show up. There is greater perception and conception of various life styles associated with different careers. Adolescents' expression of choices of careers have frequent references to life styles and satisfactions and returns derived from work such as friendships, job stability, prestige, money, etc. The emphasis on intrinsic values shows the emotional need closely related to interests. The earlier concern for permanent career now gets converted into a broad framework for a life plan. Thus, at the value stage, for the first time, all the elements essential to the decision-making process are brought into focus.

The final stage of the period of tentative choices is the transition stage, there is a general calming and end of the turmoil of early adolescence. Career planning is now more and more affected by reality considerations. The individual begins to face the necessity to make immediate, concrete, and realistic decisions about vocational future keeping in view the consequences of the decisions. He enjoys relatively

greater freedom of action. An enhanced sense of responsibility and awareness of external factors of work occurs. There is a tendency to seek help from key persons. The concern relates to instrumental values of work, conditions of work, preparation required, and financial rewards.

*The Realistic Period (18-21 years):* This period ranges approximately between ages 18 and 21 or a little longer. By this time biological maturation has nearly been completed. The career choices now run through three substages of exploration, crystallization, and specification. During the exploration stage there is a marked concern with being introspective and reviewing the experience of the period of tentative choices, and to have a deeper insight into major needs and desires. There is also the realization of the irreversibility of choices once made. Hence the individuals want to discover as much as possible about themselves and about the world of work. The behaviour becomes increasingly "reality oriented". There is a degree of intellectual and emotional maturity accompanied by an intense desire to test their basic interests and values and to link choices with these interests, capacities, and values.

During the next stage i.e. the *crystallization stage*, there is the quality of acceptance in contrast to the uncertainties and confusion of exploration stage. Most individuals by now are able to move toward a positive solution regarding vocational objective and develop a sense of commitment towards it. They are now in a position to synthesize many forces, internal and external, that have a bearing on the decision. For some, there is a stage of pseudocrystallization, in which they think and act as if they have crystallized their decision, but in reality they have not analyzed the essential elements of the decision. At times it may result from emotional involvement with some person engaged in the chosen occupation. The crystallization stage is the culmination of the process of career decision making though some further refinement may take place at the specification stage.

The stage of *specification* represents a process of closure in the selection of the specific field of specialization within the chosen career or occupation. Specification stage is characterized by the individual's

willingness to confine to a narrow field and be able to resist deflection from it when confronted by a very attractive alternative.

### *Applicability to Girls*

Ginzberg et al studied a small sample of girls from upper income families to find out whether their general theory developed on the basis of study of men could be generalized to females. They found that the theory requires no major change for interpreting the behaviour of girls throughout most of the tentative period. The influences on girls when they enter the realistic period start changing as their thinking is guided more by their marriage plans at this stage. They seek their major life satisfactions through marriage instead of work. Ginzberg et al suggest that girls from lower income groups would probably be much more concerned with the preparation for the job market than their "well off" counterparts. It may also be assumed that in the changing scenario about women's emancipation, their mental context would incorporate more of career plans, even among high and middle income groups.

### *Evaluation*

Osipow (1978) observes that the empirical evidence in support of the theory is mixed. Some evidence is available with regard to different kinds of experiences in their vocational development at various age levels. There also appears to be reason to believe that students must compromise their career preferences due to limitations imposed by reality factors. Among the shortcomings of the theory stated initially were:

- (i) the manner in which the theory was developed from the interview data is not made explicit;
- (ii) the research sample was too small and not representative of the larger population to warrant generalizations, particularly the sample from lower income groups and women, it has the bias of belonging to a select strata of society and a specific intellectual level;
- (iii) no older people were studied, only adolescents and a few young adults. Ignoring adult career process has been a serious limitation;

- (iv) the concept of the irreversibility of the career development process is stated too strongly to be universally true.

However, Ginzberg (1972) has been alive to some of the criticism raised concerning his theory, and introduced changes in his restatements. First, he recognized the need to modify the theory to include emphasis on career development as a life span phenomenon which does not stop at age 21. Second, he has toned down the assertion regarding irreversibility of choice and attributes it to expenditure of time and resources only for some people at some times. Thirdly, he has changed the concept of compromise to one of optimization, or the best fit between the individual's preferences and the available opportunities, due to continuing efforts to match the two.

The biggest advantage of the theory lies in its historical importance in laying stress on developmental aspects of career decision making as against the then prevalent static concepts based purely on differential psychology principles. This theory paved the way for exposition of more theories in a developmental perspective.

### **ROE'S PERSONALITY THEORY OF CAREER CHOICE**

Roe's theory of career choice was an off-shoot of a series of investigations conducted by her to identify personality traits of eminent physical and social scientists. Her other major concern was working out an occupational classification. In giving her theory of career choice, which she initially published as "Early Determinants of Vocational Choice" (Roe, 1957), she brought together personality orientations of people and occupations classified into "Person-Oriented" and "Not-toward-Person-Oriented" arrived at on the basis of her findings which had revealed major differences among groups of scientists in the type of interactions they had with people and things. Roe's studies were some of the few systematic attempts at that time to explore the relationships between familial, intellectual, personality, and social factors and success in occupations. In the early history relevant to later career choices, she hypothesized childhood factors as school subjects, achievement in school, influence of teachers, parental harmony, history of illness, and father's occupational field as dominant causes of resultant personality orientations.

### *The Theory*

Roe's theory is also classified as need theory of career choice. Roe begins with the individual's early psycho-social experiences in the family, and traces their effect on formation of needs and patterning of psychic energy. Child rearing practices, according to her, create major differences in personality and adult behaviour patterns including career behaviour.

Roe in her 1990 article (Roe and Lunneborg, 1990) contends that in relating needs with occupations, she found Maslow's concept of basic needs, arranged in order of prepotency to be the most useful approach. Among the other two major influences (Osipow, 1983) were Murphy's (1947) concept of canalization of psychic energy and the notion of genetic influences on career decisions and formation of need hierarchies. Occupational situation, according to Roe, has the maximum potential of giving some satisfaction at all levels of basic needs. She (Roe & Lunneborg, 1990), however, chose to change the position of the need for self-actualization from being at the top to come after the need for importance, respect, self-esteem, and independence in the hierarchy.

Roe gave a set of general statements in relation to the role of the individual's genetic background as well as involuntary expenditure of psychic energy, combined with the need primacies as determined by early satisfactions and frustrations. Combined influence of genetic factors and need hierarchies gives shape to ultimate selection of a career. Some of Roe's statements refer to the manner in which the development of patterns and the strengths of the basic needs are affected by childhood experiences. She proposes that child-rearing practices relate directly to both the kind of needs satisfaction and the delay involved in their gratification.

### *Propositions*

The latest version of the theory (Roe & Lunneborg, 1990) contains five propositions (modified from the original) on the origin of interests and needs:

1. Genetic inheritance sets limits on the potential development of all characteristics; but the specificity of the genetic control and the extent and nature of the limitation are different for

different characteristics. It is probable that the genetic element is more specific and stronger in what we call intellectual abilities and temperament than it is in such other variables as interests and attitudes.

2. The degrees and avenues of development of inherited characteristics are affected not only by experience unique to the individual but also by all aspects of the general cultural background and the socio-economic position of the family. This proposition takes account not only of the fact that individual experiences affect which and how far various inherited characteristics may be developed but also of the fact that such factors as race, sex, and the social and economic position of the family are importantly involved. (This proposition is exemplified in the formula presented later).
3. The pattern of development of interests, attitudes, and other personality variables with relatively little or nonspecific genetic control is primarily determined by individual experiences, through which involuntary attention becomes channeled in particular directions. The important word here is involuntary. The elements of any situation to which one gives automatic or effortless attention are keys to the dynamics of behaviour. This proposition is clearly related to hypotheses concerning the relations between personality and perception.
  - a. These directions are first determined by the patterning of early satisfactions and frustrations. This patterning is affected by the relative strengths of various needs and the forms and relative degrees of satisfaction they receive. The two latter aspects are environmental variables.
  - b. The modes and degrees of need satisfaction determine which needs will become the strongest motivators. The nature of the motivation may be quite unconscious. The following are possible variations: (1) Needs that are satisfied routinely as they appear do not become unconscious motivators. (2) Needs for which even minimum satisfaction is rarely achieved will, if of a higher order (as used by Maslow, 1954), become expunged or will, if of a lower order, prevent the appearance of higher order needs and

will become dominant and restricting motivators. (3) Needs for which satisfaction is delayed but eventually accomplished will become (unconscious) motivators, largely according to the degree of satisfaction felt. Behaviour that has received irregular reinforcement is notably difficult to extinguish (Ferster and Skinner, 1957). The degree of satisfaction felt will depend, among other things, on the strength of the basic need in the given individual, the length of time between arousal and satisfaction, and the values ascribed to the satisfaction of this need in the immediate environment.

4. The eventual pattern of psychic energies, in terms of attention-directedness, is the major determinant of interests
5. The intensity of these needs and of their satisfaction (perhaps particularly as they have remained unconscious) and their organization are the major determinants of the degree of motivation that reaches expression in accomplishment.

#### *Parent-Child Relation Patterns*

In Roe's opinion, the early childhood experiences are particularly determined by child's relations with parents. At a conceptual level she gave three types of parental behaviours as: (1) emotional concentration on the child, which could be either over-protecting or over-demanding; (2) avoidance of the child which could be expressed either as emotional rejection or as neglect; and (3) acceptance of the child, either casually or lovingly. The parent-child relations are reflected in the modes of child-rearing practices. The following description makes clear the different kinds of parental practices, their expectations from the child and the accompanying need satisfactions and frustrations of the child. She contends that basic orientations of people into either toward-persons or not-toward-persons are the result of these need hierarchies.

1. *Emotional Concentration on the Child:* In this kind of emotional structure of the family, the child is the centre of attention. This attitude finds expression in (i) over protection of the child, or, (ii) in being overdemanding. In both cases, the child's physical needs are gratified promptly and adequately. But the needs for love, esteem, belongingness etc. are made

conditional. The overprotective parents will reward behaviour connected with dependency on others and conformity; the overdemanding parents reward behaviour that is connected with conformity and achievement. The overdemanding parents lay premium on achievement and development of intellectual skills. The child's needs for love, information, and understanding, too, are made contingent upon achievement. In an extremely overdemanding situation it may amount to rejecting the child. The overprotective parents, on the other hand, magnify the child's achievements and hence discourage aspirations, a sense of independence, inquisitiveness, self-actualization etc.

2. *Avoidance of the Child:* This parental attitude may be expressed as (i) neglecting the child's physical and emotional requirements or (ii) rejecting the child emotionally. In the first case the physical well-being of the child is ignored by default, or due to some genuine limitations of the parents. In the second case there is an intentional lack of emotional need gratification of the child though there is adequate physical need gratification and security. In both cases the resulting need hierarchies undergo a stunted development.
3. *Acceptance of the Child:* In this parental attitude the child is regarded as a full-fledged member of the family, though with not too much of emotional concentration. Parents are non-coercive, non-restrictive, and encourage independence. Two kinds of accepting attitudes are possible: (i) *loving acceptance*, and (ii) *casual acceptance*. Accepting parents of both types offer satisfactory gratification of children's needs at most levels. The difference lies in the way in which they provide need gratification. The casual acceptance is accompanied by minimum amount of social interaction, whereas in loving acceptance, non-interference and encouragement of independence is intentional.

One major contribution of Roe in giving her theory of career choice is the classification of occupations by the type and field of activity and by level. The intention was to build a scheme which will integrate relationships between the parental attitudes/practices, the

resulting need hierarchies of the child, personal orientation, and his/her eventual selection of a vocation which she classified as oriented-toward or oriented-not-toward persons. She made use of concentric circles (Figure 4.1) divided into segments but making a continuum from overprotection of the child through loving, accepting, and rejecting parental attitudes. She also indicates the occupations as oriented-toward and oriented-not-toward persons in relation to these attitudes.

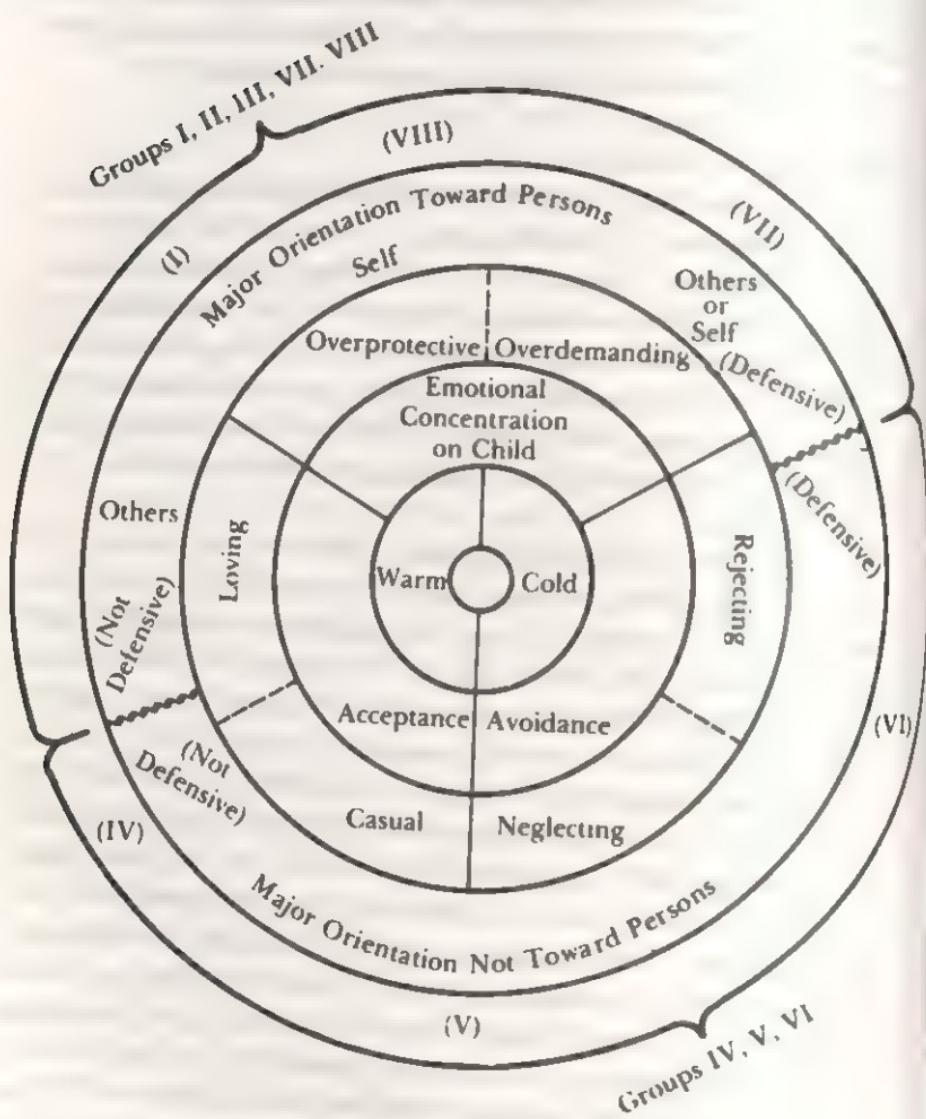
### *Occupational Classification*

As seen in Figure 4.1 the occupations were categorized into eight groups described by her (Roe & Lunnberorg, 1990) as Service, Business Contact, Organization, Technology, Outdoor, Science, General culture, and Arts and Entertainment. In each group Roe identified six levels based on the degree of responsibility, capacity, and skill involved. This level hierarchy has been given under the categories of Professional and Managerial-I, Professional and Managerial-II; Semi-professional and Small Business, Skilled, Semi skilled, and Unskilled.

Roe (Roe & Siegelman, 1963) constructed a Parent Child Questionnaire (PCR-I) to measure parent-child relations. The tool gives three factors (i) Loving-Rejecting (LR), Casual-Demanding (CD), and Overt Attention (OA). The factor CD was assumed to affect person orientation. PCR-II (Siegelman & Roe, 1979) has different forms for same sex and cross-sex parental evaluation by the child.

Roe's formulations stimulated a great deal of research and construction of interest and preference inventories. Factor analysis of data (Jones, 1965) provided a major part of the variance being explained in terms of two factors viz; (i) person-oriented and non-person-oriented dimension and (ii) other-directed versus inner-directed dimension. Klos (Roe and Klos, 1972) defines the two dimensions in terms of interpersonal versus natural phenomena and purposeful communication versus resourceful utilization. The validity of PCR-I (Goldin, 1969; Roe & Siegelman, 1963) and PCR-II (Tiboni, 1976) has been established. Roe's occupational classification has been extensively used in researches in the west as well as in India.

**Figure 4.1**  
**Hypothesized Relations Between Major Orientation,  
 Occupational Choice, and Parent-Child Relations**



**Source:** D. Brown and L. Brooks, *Career Choice and Development* San Francisco: Jossey-Bass Publishers, 1990

As a theory, an explicit and comprehensive model has been provided with logically drawn out propositions. Some of the limitations of the theory that have been frequently pointed out are: (i) that it does not serve as a counselling model, though as claimed by (Roe and Lunneborg, 1990) it was not meant to be so; (ii) as Osipow (1983) points out that the validity of data for studies is dependent upon the accuracy of the retrospective reports of the scientists and their parents, and (iii) that generalizations cannot be drawn from studies of the outstanding persons.

Roe (1990) admits that the theory cannot be generalized to account for women except for those who enter careers and continue without interruption. The roles of mother and housewife overlap with all categories in occupational classification (she finds group 7 as being the closest to them). Brown (1990, P. 351) points out that Roe has failed to account for the actual decision-making process itself. Her theory focusses on occupational choice rather than on career development. However, her basic idea that occupational choice involves an attempt to meet needs is in line with current thinking.

### **HOLLAND'S TYPOLOGICAL THEORY OF CAREERS**

One of the most visible and highly researched theoretical perspectives since 1971 is Holland's theory which is close to trait-factor approach and uses a structural-interactive model. It provides explicit links between various personality characteristics and corresponding job titles and hence attempts to organize data about people and jobs. In addition, Holland has incorporated ideas of many other theories and researches, specially deriving inspiration from the review of SVIB Scales and Murray's (1938) and Linton's (1945) notions about environment. The first account of his theory came out in 1959 (Holland, 1959). Though Holland preferred to limit his theory to "simple, inexpensive, practical definitions and measures" (Holland, 1985a), he has been constantly revising and refining his theory with more systematic and scientific formulations appearing from time to time (Holland, 1966, 1973; Holland and Gottfredson, 1976). The latest statement (Holland, 1985) is the last version and according to Holland, it clearly resembles his 1973 statement. In giving his theory, Holland's basic thesis is that career choices are an extension of personality and that people project their views of themselves and the world of work on

to occupational titles. Personality orientation, he contends, could be classified into a small number of types.

### *Background Principles*

Holland incorporated a number of background principles and assumptions (Holland, 1982a) into his theory which have strengthened his formulations of the theory. Holland contends that the choice of a vocation is an expression of personality. He observes that for a long time in the history of measurement, interests and personality were treated as separate constructs. In recent thinking interests have also referred to personality traits and self-ratings of ability. Super (1972), e.g., has advocated vocational choice as being in large part the implementation of a person's self concept in relation to school, work, and leisure time activities.

Interest inventories are, by implication, personality inventories, according to Holland. Using this principle, Holland (1958, 1977) developed his Vocational Preference Inventory consisting entirely of occupational titles.

Holland also believed that vocational stereotypes have important psychological and sociological meanings across cultures and subcultures and have a great deal of stability and validity. This belief is substantiated by research evidence. Vocational stereotypes have been found to influence career behaviour, and interest inventories have been successfully used in predicting success in occupations.

Another important assumption which guided Holland's formulations was that members of a vocation have similar personalities and similar histories of personal development. Holland (1985) quotes a number of researches in support of this contention. Groups of physicists, chemists, and mathematicians have been found to possess similarities in their personality traits. Following this assumption he concluded that members of a vocation will respond to many situations and problems in similar ways and will create a characteristic inter-personal environment in the work situation. Accordingly, it is possible to describe an educational or work situation as having a particular profile of work requirements in terms of worker characteristics or personal traits.

The most important assumption based on the above contentions is that vocational satisfaction, stability, and achievement depend on the congruence between one's personality and the environment in which one works. A psychological 'fit' between a number of personal

variables or worker characteristics and the work environment will be the ideal situation. The assumption is well supported by vocational literature.

### *The Theory*

The typological theory is stated in terms of four working assumptions:

1. *Most persons can be characterized by one of six types: realistic, investigative, artistic, social, enterprising, or conventional (RIASEC).*

A type is a model against which a person can be measured. The type is a product of interaction between cultural and personal forces including peers, biological heredity, parents, social class, culture and the physical environment. One's preferences for activities which later develop into strong interests and competencies arise out of this interaction. Personal dispositions to think, perceive and act in certain ways, in turn, are created by these interests and competencies.

2. *There are six model environments: realistic, investigative, artistic, social, enterprising, and conventional (RIASEC).*

Each environment is dominated by a given type of personality, and each environment has a typical physical setting. Where people congregate they create an environment that reflects the types they are.

3. *People search for environments that will let them exercise their skills and abilities, express their attitudes and values, and take on agreeable problems and roles.*

The person's search for environment suiting his or her personality type is carried on in many ways, at different levels of consciousness, and over a long period of time.

4. *Behaviour is determined by an interaction between personality and environment.*

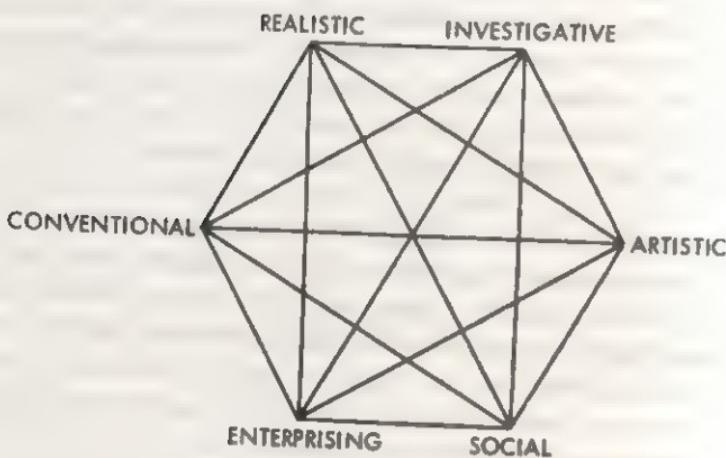
Behavioural outcomes like choice of vocation, job changes, vocational achievement, personal competence and educational and social behaviour result from interaction between personality and environment. These outcomes can be predicted by using information about the person's type and the pattern of his or her environment.

### *The Spatial Model*

Holland has used an empirically derived spatial model (Hexagon) to depict relationships between various personality types or between environmental models. He has also elaborated upon some of the

secondary assumptions which he calls key concepts which describe his theory. The hexagon is helpful in understanding the theory, the instruments, and the classification system. The six types as shown in the diagram (Figure 4.2) appear on six points of the Hexagon.

**Figure 4.2**  
**A Hexagonal Model for Interpreting Interclass  
and Intraclass Relationships**



**Source:** J.L. Holland, *Making Vocational Choices: A theory of Vocational Personalities and Work Environments* (2nd ed). Englewood Cliffs, N.J.: Prentice Hall, 1985.

The secondary assumptions have been given as five key concepts that further qualify the main concepts, applicable to both personality types and environmental models:

*Consistency:* Consistency is the degree of relatedness between personality types and between environmental models. Some pairs or types have more in common than other pairs. For example Artistic and Social have more in common than Artistic and Realistic or Investigative and Enterprising.

*Differentiation:* Differentiation is the degree to which a person is well defined. Persons and environments differ in the degree to which they are differentiated and saturated. A well differentiated person will show distinctly higher rating on minimum number of types. A person or an environment which resembles many types is poorly differentiated.

*Identity:* Identity refers to the clarity and stability of goals, interests, talents, etc. in the case of persons. Environmental identity is revealed through the organization's clarity, stability and integration of goals, tasks, and long standing system of rewards. A person's identity is related to the extent of differentiation of his/her profile and environmental identity is related to the level of saturation in the type of occupational activity.

*Congruence:* Congruence is a crucial key concept. It is defined as correspondence between personality type and environment. Different types require different environments to flourish. Incongruence occurs when a type lives in an environment that provides opportunities and rewards not in line with his/her characteristics like preferences, abilities, etc. The hexagon can be used to determine the degree of congruence between an individual's high point code and the environment. Proximity of types and models in the hexagon is indicative of the degrees of congruence between types and models.

**Calculus:** According to Holland (1985) "the relationship between types or environments can be ordered according to a hexagonal model in which the distances between the types or environments are inversely proportional to the theoretical relationships between them". The hexagon provides a graphic representation of the degree of consistency within or between a person or an environment.

The characteristics associated with each type are in terms of their preferences, attitudes, values involved. Each type is high on certain characteristics and low on certain other characteristics which are opposite in nature.

### *Personality Types*

A brief description of *types* as suggested by Holland is given below. The descriptions of models can be inferred from the same as environments are characterized by the people who occupy them.

**Realistic:** A realistic individual prefers activities that involve systematic manipulation of objects, machinery, tools and animals, and is averse to social skills like educational and therapeutic.

**Investigative:** The investigative type of a person shows a preference for activities involving observational, analytical, systematic, and creative competencies as against low preference for persuasive, social, repetitive activities.

**Artistic:** Artistic type of people show tendencies to be expressive, nonconventional, unsystematic, original, and introspective. They are averse to systematic activities like clerical and mechanical in nature.

**Social:** Social type of people have an interest in human relations. They prefer working with others to inform, train, develop, cure or enlighten them. They avoid ordered, systematic activities involving materials, tools, and machines.

**Enterprising:** Such individuals enjoy activities involving manipulation of others to attain organizational goals or economic gain but avoid symbolic and systematic activities.

**Conventional:** Their preference is for ordered, systematic manipulation of data and filing records. They are averse to ambiguous, exploratory activities.

Holland believes in the development of personalities into types as much as in the contribution of hereditary factors. Inborn physical and psychological endowments determine the potential development of the child though in unspecified and varying degrees with regard to different components of personality. Environmental influences of parents emanate from parental attitudes which manifest themselves in the form of provisions they may make or deficits created by their lack of interest in certain types of phenomena. Holland puts it in a nutshell as 'To some degree, types produce types'. Parental influences are also generated by children, in as much as they make certain demands upon their parents and have them submit to their demands. Among other important environmental influences are peer group relations and school. The interaction between hereditary and environmental influences gives rise to competencies and dispositions manifested as self concepts, concept of the world, values, personality traits, coping styles etc.

Personality types develop out of influences within and outside individuals. But the construction of the model environment rests mainly on the assumption that most of our environment is transmitted through other people. Conversely, Holland believes that types flourish in congruent environment, though he explains the limitations in labelling an environment as a typical one due to diversities within environments, variations in individuals' perception of that environment, etc. Some of the factors besides people in the environment are demands of the work situation, people who exert stronger influence, and size and complexity of an environment.

#### *Assessment of Types and Vocational, Educational, Social Behaviour*

Holland established a relationship between personal orientations and level and direction of vocational, personal, educational, and career behaviour and other outcomes like satisfaction, stability, and achievements in chosen courses and careers. The person's standing on secondary assumptions consisting of differentiation and identity, were expected to influence these outcomes likewise. To characterize the direction of choice Holland developed three letter codes for primary, secondary, and tertiary choices based on scores on Vocational Preference Inventory (VPI) developed by him or some parallel tools,

which give information regarding the personal orientations or personality types. Further, in his latest version of the theory Holland (1985) gave empirical level-hierarchy of types and 'orientations' in the following order: Enterprising, Social, Artistic, Investigative, Conventional, and Realistic (ESACR), and related the level of aspirations and achievements to this level hierarchy. Job satisfaction and stability were enhanced by congruence between 'types' and 'environments'. The theory, it is pointed out, suffers from gender bias in discriminating between interest patterns of men and women and encouraging this gap by expectations for men and women to find congruence between their typical types and typicality of environments. Holland has also provided an empirical order of personal orientations according to the extent to which they go with job stability and effective coping with work situations and unemployment. This order is as follows ; Social, Enterprising, Artistic, Investigative, Conventional, and Realistic (SEAICR). Holland assigns an important role to environments in influencing a person's vocational, personal, educational, and social behaviour. These outcomes are also either enhanced or adversely affected by the interaction of types and environments depending upon the degree of congruence between the two.

#### *Assessment of Types and Environments*

A number of tools have been developed by Holland to make a quantitative assessment of the extent of resemblance of a person to given type or types. Both qualitative and quantitative methods have been suggested. For example, expressions of preferences for being engaged in some activity, planning to pursue some courses of studies, or planning to enter some occupation are all indicative of some or the other type. Similarly, quantitative methods such as Vocational Preference Inventory (VPI) (Holland, 1977) and Self-Directed Search (SDS) (Holland 1979) are useful devices to categorize people into types. The VPI consists of six scales covering 84 occupational titles (14 for each scale). The highest score represents a person's personality type; the profile of scores represents the personality pattern. Personality patterns and subtypes may consist of two to six variables or types. Thus personality patterns and subtypes arise out of various combinations of six types. A person's complete profile would include characteristics of

all types, but subtypes are developed on the basis of three most dominant types found in the individual. The SDS covers a variety of content assessed through activities, competencies, occupations, and self-ratings. Recently (Campbell and Hausen, 1981) have developed Strong-Campbell Interest Inventory (SCII) to assess a person's resemblance to each of the personality types. My Vocational Situation (MVS) (Holland, Daiger and Power, 1980), the Vocational Exploration and Insight Kit (VEIK) (Holland and others, 1980) are similar devices. Gottfredson, Holland, and Ogawa (1982) have developed the Dictionary of Holland Occupational Codes (DHOC) to characterize the work environments of the 12099 occupations in the Dictionary of Occupational Titles (DOT; Department of Labour, 1977).

In order to match the types with the environments, Holland has given an Environmental Assessment Technique (EAT) giving a six-variable profile of the environment.

#### *Evaluation of the Theory*

The Theory of "Vocational Personalities and Work Environments" has attracted a great deal of research work to test its contentions and concepts. The theory also has great utility in the practical field of career counselling. Among other advantages of the theory are that major concepts of the theory have operational definitions and the refined and self-help tools are aids in career planning and counselling. Super (1985) and Holland (1987) have favourably reviewed the theory.

Brown (1990) mentions the issues that have been raised against the theory as follows:

1. The SDS in particular and Holland's model in general, are sexist;
2. The theory does not sufficiently explain how people become the types that they are;
3. Holland understates the need for vocational counselling; and
4. Matching models are static and outdated.

### **SUPER'S DEVELOPMENTAL THEORY OF CAREER DEVELOPMENT**

For a long time in history, the practice of vocational psychology was based on the static models like trait-factor approach using principles of differential psychology, till in mid-fifties interest in

studying events influencing vocational selection gave rise to developmental emphasis. Donald Super, in his formulation of the theory of career development, was influenced by Charlotte Buehler's (1933) writings on developmental psychology, and her division of life span into five stages of growth, exploration, establishment, maintenance, and decline. His conception of career development is built upon this framework. He also assumes that vocational tasks reflect the life tasks.

In addition to this life-stage life-span emphasis, Super's theory is also known as self-concept theory of career development. He was influenced by the writings of Carl Rogers (1942, 1951), Carter (1940), and Bordin (1943). These self-concept approaches suggested that behaviour is a reflection of an individual's attempt to implement his self-concept in work situations. Bordin underlined the role of occupational stereotypes in determining the selection or rejection of occupations in comparison to the self-view. Super (1990) summarizes four major influences on his theory including the two stated above. Specifically these disciplines are: differential psychology interested in work and occupations; developmental psychology dealing with "the life course"; sociological focus on dynamics of occupational mobility; and personality theorists' view of individuals as organisers of experience. His formulations based on theoretical orientations of various disciplines have appeared in his propositions which constitute the heart of the theory.

Super's first version of the theory of career development found expression in the writing of two books (Super, 1942, 1949). The 1942 theory was revised by him and elaborated in a book (1957) and a monograph (Super et al, 1957), and several papers. In his early formulations he proposed that individuals strive to implement their self-concept in the chosen occupation and the occupation seen as most likely to permit self-expression was chosen. He delineated developmental tasks at various stages of life, which were instrumental in implementation of the self-concept. The developmental emphasis also focusses on individuals pursuing "careers" rather than on individuals engaged in "occupations". The former is evolutionary in nature in contrast to the "matching once-for-all" conception of careers.

Super (1953) formulated ten propositions followed by his (Super, 1957, 1960) explicit elaboration on life stages, career patterns and ca-

reer maturity etc. The concepts of career maturity and career patterns have been discussed separately in this volume. Using his emphasis on the self-awareness that the infant possesses at birth, Super elaborated on his notion of the self concept and on how the primary and the secondary self-percepts develop and become more complex and abstract in the process of maturation. The process begins with the self-differentiation that occurs as part of a person's search for identity. Self-percepts about education and work result in this process. Super emphasizes the importance of role play and identification with role models in differentiation and development of personal and career identity. Super (1984, 1990) prefers to call his theory personal construct theory instead of self-concept theory a to show the individual's dual focus on self and on situation.

### *The Theory*

Super (1969, 1990) points out that his theory of career development is only a "Segmental Theory", a loosely unified set of theories dealing with specific aspects of career development taken from developmental, differential, social, personality, and phenomenological psychology. He uses the construct of 'Self-Concept' and 'Learning Theory' to bind these ideas together. Before we elaborate on Super's attempts at synthesizing the various theories and models which he finally suggested as "Archway Model" (Super, 1990), we present here the final version of the propositions which he derived from various models, revised them, and later synthesized. The propositions are:

1. People differ in their abilities and personalities, needs, values, interests, traits, and self-concepts.
2. People are qualified, by virtue of these characteristics, each for a number of occupations.
3. Each occupation requires a characteristic pattern of abilities and personality traits, with tolerances wide enough to allow both some variety of occupations for each individual and some variety of individuals in each occupation.
4. Vocational preferences and competencies, the situations in which people live and work, and hence, their self-concepts, as products of social learning, are increasingly stable from late adolescence until late maturity, providing some continuity in choice and adjustment.

5. This process of change may be summed up in a series of life stages (a "maxicycle") characterized as a sequence of growth, exploration, establishment, maintenance, and decline, and these stages may in turn be subdivided into (a) the fantasy, tentative, and realistic phases of the exploratory stage and (b) the trial and stable phases of the establishment stage. A small (mini) cycle takes place in transitions from one stage to the next or each time an individual is destabilized by a reduction in force, changes in type of manpower needs, illness or injury, or other socio-economic or personal events. Such unstable or multiple-trial careers involve new growth, re-exploration, and re-establishment (recycling).
6. The nature of the career pattern — that is, the occupational level attained and the sequence, frequency, and duration of trial and stable jobs — is determined by the individual's parental socio-economic level, mental ability, education, skills, personality characteristics (needs, values, interests, traits, and self-concept), and career maturity and by the opportunities to which he or she is exposed.
7. Success in coping with the demands of the environment and of the organism in that context at any given life-career stage depends on the readiness of the individual to cope with these demands (that is, on his or her career maturity). Career maturity is a constellation of physical, psychological, and social characteristics; psychologically, it is both cognitive and affective. It includes the degree of success in coping with the demands of earlier stages and substages of career development, and especially with the most recent.
8. Career maturity is a hypothetical construct. Its operational definition is perhaps as difficult to formulate as is that of intelligence, but its history is much briefer and its achievements even less definitive. Contrary to the impressions created by some writers, it does not increase monotonically, and it is not a unitary trait.
9. Development through the life stages can be guided, partly by facilitating the maturing of abilities and interests and partly by aiding in reality testing and in the development of self-concepts.

10. The process of career development is essentially that of developing and implementing occupational self-concepts. It is a synthesizing and compromising process in which the self-concept is a product of the interaction of inherited aptitudes, physical make up, opportunity to observe and play various roles, and evaluations of the extent to which the results of role playing meet with the approval of superiors and fellows (interactive learning).
11. The process of synthesis or compromise between individual and social factors, between self-concepts and reality, is one of role playing and of learning from feedback, whether the role is played in fantasy, in the counselling interview, or in such real-life activities as classes, clubs, part-time work, and entry jobs.
12. Work satisfaction and life satisfaction depend on the extent to which the individual finds adequate outlets for abilities, needs, values, interests, personality traits, and self-concepts. They depend on establishment in a type of work, a work situation, and a way of life in which one can play the kind of role that growth and exploratory experiences have led one to consider congenial and appropriate.
13. The degree of satisfaction people attain from work is proportional to the degree to which they have been able to implement self-concepts.
14. Work and occupation provide a focus for personality organization for most men and women, although for some persons this focus is peripheral, incidental, or even non-existent. Then other foci, such as leisure activities and homemaking, may be central (Social traditions, such as sex-role stereotyping and modeling, racial and ethnic biases, and the opportunity structure, as well as individual differences, are important determinants of preferences for such roles as worker, student, leisurite, homemaker, and citizen).

Super (1980) brought together life stage and role theory depicted graphically as "life-Career Rainbow" (Figure 4.3). It presents a comprehensive picture of multiple roles, various factors influencing these roles, and the patterns of interactions. Among the two major

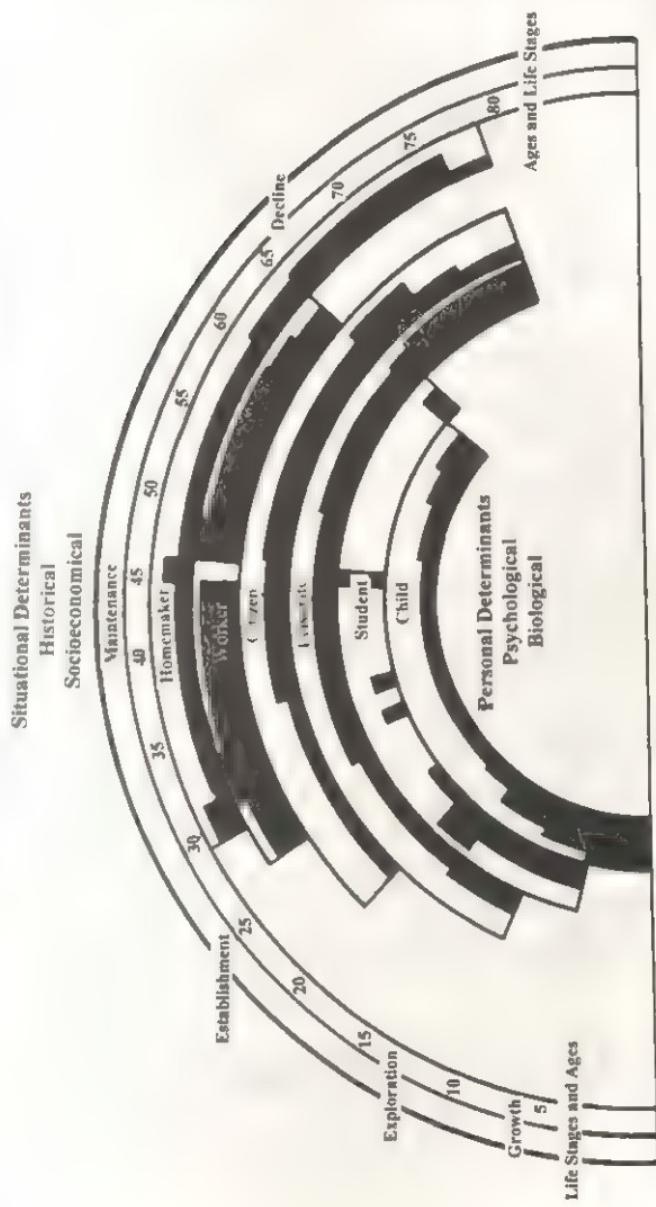
dimensions, the longitudinal dimension or the maxicycle represents the life span and the major life stages viz; growth, exploratory, establishment, maintenance, and decline corresponding to childhood, adolescence, young adulthood, middle adulthood, and old age respectively. Within this maxicycle there is a minicycle operating at each stage. This minicycle is a recycling of the five stages. Role-Salience is the second dimension — the latitudinal depicted by the rainbow. The life space on the six roles played during the lifetime are graphically depicted on this dimension as the roles of child, student, leisurite, citizen, worker, and homemaker. The role behaviour at various stages is influenced by biological, psychological, and personal determinants on the one hand and the socio-economic, historical, and situational determinants on the other. The rainbow is helpful in understanding the relative position of roles against life stages. It has also served a useful purpose in assessment for career counselling.

Attempts at synthesizing theories and models further led Super to develop a unified model of career development he called Segmental/Archway Model (Figure 4.4) to explicate the segments and their position in the scheme. The model is more explicit about the relationships between segments and the force that binds the relationships.

The base of the Career Archway consists of three large stones with the biological-geographical foundations of human development as the doorstep. The large stones at the two ends give support to the two columns of *person* and *society* which grow and develop out of their impact on each other. Super uses the term personality to include all personal qualities like needs, values, intelligence, aptitudes, interests, etc. Achievement is the result of use, misuse, or disuse of personal resources.

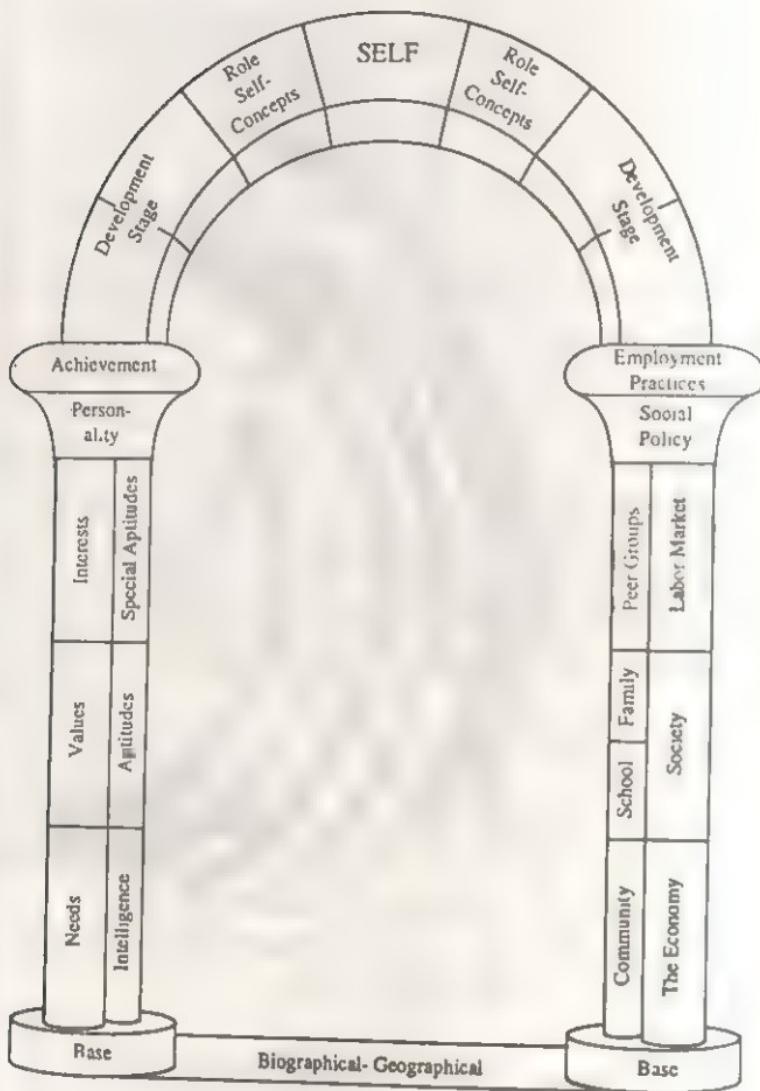
The societal forces like family, school, community, peer group, the economic situation of the country are the important aspects of the *social policy* which determines employment practices. Dynamic interaction of individual and society gives rise to the career (represented as the Arch). The Arch consists of developmental stages, developmental tasks, and roles ranging from childhood through adolescence and young adulthood to maturity. The keystone of the Archway is the person who is the decision maker, and in which all of

Figure 4.3  
The Life-Career Rainbow: Six Life Roles in Schematic Life Space



Source: D.E. Super, in D. Brown, L. Brooks, and Associates, "Career Choice and Development. San Francisco: Jossey Bass Publishers, 1990.

**Figure 4.4**  
**A Segemental Model of Career Development**



**Source:** Super, D.E. in D. Brown, Linda Brooks, and Associates "Career Choice and Development. San Francisco: Jossey Bass Publishers, 1990.

the forces — personal and societal — are brought together and organized in terms of self percepts and perceptions of social roles. The combined influence of various forces gives rise to career decisions.

Super uses the principles of *learning theory* as a binding force between various segments of the Archway. Accordingly, the feedback resulting from combination and interaction of various forces strengthens or weakens the likelihood of certain behavioural responses in future.

### *Life Stages and Self-Concept*

The life stages depicted as developmental stages in the Archway is one of the significant contributions made by Super (1957) in early formulations of his theory and hence deserves more detailed treatment here. The stages crucial to career development, according to him, are exploration, establishment, maintenance, and decline during which the individual's self concept develops and matures, and is implemented.

*Exploration:* Adolescence i.e. the period from about 15 to 25 years is described as a phase of life beginning with transition from childhood to early adolescence and culminating in early adulthood. This period is characterized by efforts to adapt oneself culturally to the subculture of grown ups and developing a self concept. The self-concept develops through a growing awareness of what is self and non-self, through approval or disapproval of specific behaviours by adults and through emulation of role models. Various situations such as home, school, and part-time work provide opportunities to the adolescent to observe and know about role models, indulge in role play, observe and participate in various kinds of work, and develop tentative ideas about likes and dislikes.

An important aspect of the exploratory stage consists of facing problems in trying to secure a job and become a worker, problems of adapting to the culture of the grown ups and making a transition from warm and secure to a competitive environment.

Super calls this the process of reality testing. Floundering may take place in the adolescent's attempts at finding a place in the world of work due to a lack of self understanding or of occupational information or both and lack of opportunities and/or resources. Problems due to discrepancy between one's aspirations and social expectations and other adjustment problems like adjusting to authority, coworkers, and family demands etc. may arise at this time. Some major problems hampering stability at this time may concern adjusting to work requirements like technical competence, routine and tempo, work load, and work attitudes and values, job insecurity, and lack of avenues for advancement etc. In addition, Super lays stress on such aspects of work as are related to the way of life, and which may cause problems. Among these are the status the job bestows on the individual, the pace of life, the schedule of life, and the community living etc.

In due course, the adolescent matures chronologically, as well as cognitively, socially, and emotionally and this helps in ending the process of floundering.

**Establishment:** The establishment stage now starts around the age of 25 with behaviours which aid stabilization in the world of work. The cognitively oriented individual has now finally selected a goal after looking back and taking stock of successes and failures. With the definite career goal in view, the individual now moves in the direction of attaining that goal by taking necessary steps. The process of stabilization in Super's view sets in due to considerations of seniority of age and time period on the job, a steadily flowing income, family responsibilities, and emotional ties etc. It also consists of efforts at making an advancement in career. Among the factors that aid the advancement process are informal relationships, one's background and affiliations, merit and achievements etc.

**Maintenance:** The age between 45-60 is the stage when the worker has found and made a place for himself in the world of work; he has established a home and he has a recognized role in the community. Adjustment, in this stage, consists of dealing with a conflict of values - conflict between whether to work harder to break new grounds even when past attempts have not been rewarded, or when the success has already been attained, relaxing to enjoy what has already been attained instead of working harder to make new gains. The maintenance stage is

one of fruition or self-fulfillment when one is successfully established and is accompanied by all round adjustment. Unsuccessful establishment, on the other hand, leads to feelings of inadequacy, insecurity, problems at home etc.

**Decline:** This stage is characterized by the two substages of 'decline leading to retirement' and 'retirement itself'. This is the process of aging and slowing down of physical and mental processes. Assimilating awareness of these realities with the self-concept is one major developmental task now. A healthy integration of the concept of himself as he is becoming depends upon how successful the person has been in the past in making adjustments. Such adjustments require one to introduce changes in work and job in the work role and in the way of life.

Retirement may mean different things to different people. It may be an unwelcome activity, or freedom to do new things or escape from pressures that have been too great. It requires changes in habits and daily routine, changes in self-concept. All this may require either a great effort or may be taken in stride. Engaging in part-time work, and working at a low pay may be accepted by some as a viable alternative. Hobbies come to occupy greater importance. Counselling for preparation for retirement is important at this stage.

### *Career Maturity*

The 'stage' concept laying emphasis on developmental processes gave rise to a measuring tool entitled Career Development Inventory (CDI) (Super et al, 1979), to assess career maturity. The concept of career maturity and the CDI have been taken up for elaborate treatment in the chapter on Career Maturity.

### *Evaluation*

The life-span life-space approach or the developmental personal construct theory of Super has found large scale applicability in a variety of situations using samples from among males and females, different communities, and socio-economic groups. On the matter of sex differences on career development it has been demonstrated (Lowenthal and others 1975) that the theory is valid for both sexes alike, except that some differences of degree result from women's role of child bearing and child-rearing and associated sex-role stereotyping.

Research has also been carried out on testing the concept of career maturity and validity of its dimensions. The tools measuring career maturity such as CDI and CMI have been found to be bifactorial (Super and Thompson 1979; Super and others 1983). The impact of socio-economic status and grade level on career maturity has been demonstrated (Jordan and Heyde, 1979; Ansell, 1970). The role of genetic and environmental influences in career selection emphasized by Super in his theory has been upheld by Krumboltz in Brown and Lent (1984). These determinants (processes according to Krumboltz) are: genetic endowments and special abilities, environmental conditions, learning experiences, and task approach skills. On the validity of self-concept as a construct in the theory, Kidd (1982) found it applicable on English boys and girls of all classes.

Osipow (1983) summarizes most of the pertinent research and observes among other things that the theory is a well-ordered, highly systematic representation of vocational maturation and that most of the research supports the model.

In India, some attempts at measuring developmental stage concept and career maturity have been made (Gupta, 1991; Saxena, 1988) with positive findings.

### **SOCIAL LEARNING THEORY OF CAREER DECISION-MAKING**

A novel approach to vocational development theory is the adaptation and extension of Bandura's social learning theory to career decision making process by Krumboltz (1990). The theory's primary focus is on identification and elaboration of personal and environmental events that shape an individual's decisions about careers made at selected points in life. Why do people enter particular occupations or change their educational or career paths at certain points of time in their lives? Why do people prefer some occupational activities at selected points in life? These are some of the questions addressed by the social learning theory.

The theory stresses the importance of biological inheritance as well as that of environment in all its complexity in the career decision making process. People bring a set of genetically and socially inherited characteristics to their particular environment. The personal attributes

and environment interact to produce self-views which influence the individual's work-related behaviours. These behaviours are shaped and modified by natural or programmed reinforcement contingencies.

As stated before, the theory draws heavily from research on general social learning theory and its propositions formulated from extensively available prior empirical data. According to the theory, what an individual chooses as his life work is not as important as the skills acquired in decision making and their subsequent use in career choice remains throughout life. The theory deemphasizes the traditional psychometric approaches, especially the normative measurement.

### *The Theory*

Four important factors have been identified as influencing an individual's career decision path.

- (i) *Genetic Endowment and Special Abilities:* Such inherited attributes as race, gender, physical appearance, and special abilities involving motor, intellective, and perceptual behaviours etc. influence what career the individual will choose.
- (ii) *Environmental Conditions and Events:* Conditions such as number and nature of job opportunities/training, labour laws, union rules, social policies such as retirement etc. exert their influence in a planned or unplanned manner.
- (iii) *Past Learning Experiences:* An individual's learning experiences influence the development of career preferences and skills and the selection of a particular skill. It is posited that each individual has a unique history of learning experiences that results in the chosen career path.
- (iv) *Task Approach Skills:* As a result of unspecified interactions among the above three factors, an individual develops and learns to apply to a wide range of skills, attitudes involving work standards, work values, work habits, perceptual and cognitive processes, mental sets and emotional responses. The task approach skills are modified by experience and feedback regarding their outcomes.

Krumboltz has generalized a set of propositions about the relative influence of various learning experiences. He does not seem to assume that certain types of learning are more potential than others. Further, learning experiences are divided into two types.

- (i) Instrumental learning experiences;
- (ii) Associative learning experiences.

Instrumental learning experiences are those in which an individual acts on the environment directly with observable outcomes. The three major components of the instrumental learning experiences are antecedents, behavioural responses, and consequences. Figure 4.5 below indicates these major components.

**Figure 4.5  
Instrumental Learning Experience, General Model**

Antecedents	Behaviours	Consequences
Genetic Endowment		Directly observable results of action
Special abilities and skills		
Planned and Unplanned environmental conditions or events	Covert and Overt actions	Covert reactions to consequences (Cognitive and emotional responses)
Task or problem		Impact on significant others

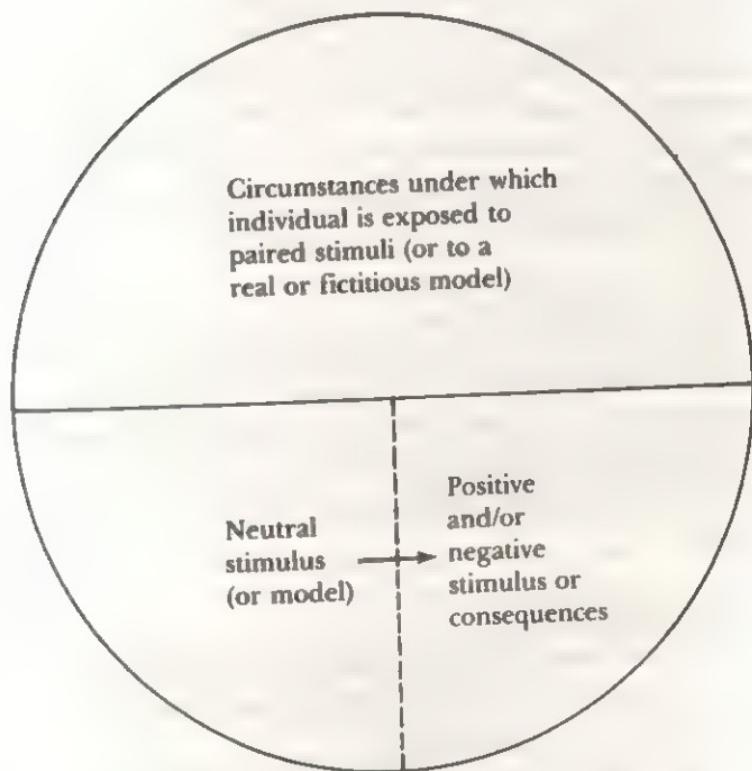
**Source:** L.K. Mitchell, and J.D. Krumboltz in D. Brown, Linda Brooks, and Associates. *Career Choice and Development*, San Francisco: Jossey Bass Publishers, 1990, P. 151.

Associative learning experiences are those in which an individual perceives a connection between stimuli and environment i.e. he observes the relationships between events and is able to predict contingencies. See Figure 4.6.

Some stimuli in the environment are seen as having positive or negative emotional associations. When previously neutral stimuli are associated with the emotionally positive or negative stimuli, the neutral stimuli will take on the positive or negative characteristics in the mind

of the observer. Occupational stereotypes are formed in this way. Figure 4.6 presents the general model for associative learning experiences in the form of a circle. The upper part of the circle specifies the circumstances through which the individual is exposed to the paired stimuli. The lower left area of the circle represents the formerly neutral stimulus or model and the lower right area represents the positive or negative stimulus or consequences. An arrow connects the lower quadrants to signify that the formerly neutral stimulus or model acquires the affective characteristics of positive or negative stimulus through the process of stimulus pairing.

**Figure 4.6**  
**Associative Learning Experience, General Model**



**Source:** L.K. Mitchell and J.D. Krumboltz in D. Brown, L. Brooks, and Associates. *Career Choice and Development* (Sec. Ed.), San Francisco: Jossey Bass Publishers, 1990.

Out of the complex interaction of the four types of influencing factors mentioned above three consequences are postulated and considered to be very important.

### *Self-Observation Generalizations*

Based on his life experiences, an individual forms a self-view. A set of theoretical propositions have been offered by Krumboltz (1979) to explain how self observation generalizations are acquired. The self observations depend on the settings in which they are made and are only as accurate as the standards to which they are compared.

Self generalizations may be divided into three major categories: (i) task efficacy, (ii) interests, and (iii) personal values. A person evaluates himself with respect to *task* to be performed; he estimates whether he possesses the requisite skills to perform a task adequately. According to social learning theorists, *interests* are the outcomes of learning experiences and based on these a person draws conclusions and makes generalizations about activities which he likes or dislikes. Self-generalizations about *personal values* are assessments persons make about their attitudes towards the desirability or worth of certain behaviours, events, or outcomes.

### *World-View Generalizations*

The individuals also form a world-view out of their observations about the environment in which they live. The accuracy of these generalizations will depend upon the number of such experiences and on how accurately they represent the reality. These generalizations are used to make predictions about occupations which help decision making.

### *Task Approach Skills*

The task approach skills are characteristic cognitive and affective predispositions that the individual displays in dealing with, interpreting, and predicting the environment.

The following task approach skills have been identified as important in the career decision theory by Krumboltz and Baker. They are the abilities of:—

- (i) recognizing an important decision situation,
- (ii) defining the situation or task manageable and realistically,
- (iii) examining and accurately assessing self observations and world view generalizations,
- (iv) generating a wide variety of alternatives,
- (v) gathering needed information about observations,
- (vi) determining which information sources are most reliable, accurate, and relevant, and
- (viii) planning and carrying out this six step sequence of decision making behaviour.

The final major consequence is the action outcomes. These are specific decision related behaviours that grow out of self observation generalizations, world-view generalizations, and the task approach skills mentioned above. For example, these might include acquiring specific job skills, seeing one's way through specific training programmes, seeking promotions, and changing job.

### *Evaluation*

The social learning theory has made an important contribution in its specificity in identifying factors affecting career decision making and its operationalizability. It has introduced a number of well defined constructs. Krumboltz has also integrated economic and social constructs into theoretical constructs and so his theory is somewhat unique in this regard.

The theory examines the impact on the career decision making process of such factors as genetic predispositions, environmental conditions and events, learning experiences, and cognitive, emotional and performance responses and skills. It is posited that each of these factors play a part in all career decisions that are made but different combinations of interactions of the factors produce the multitude of different career choices that different individuals make.

The theory seems to emphasize a great array of people as potentially important models and emphasizes how this modelling shapes behaviour through differential reinforcement.

The social learning theory has developed well defined objectives and theoretical constructs but it has failed to develop suitable empirical tests of the theory.

It has confined mainly to career decision making process, almost neglecting other aspects such as content of career choice and career development process. The theory is not developmental in its approach and hence does not really account for job changes. This, perhaps, is the theory's biggest weakness.

### **CAREER CONSCIOUS INDIVIDUAL MODEL**

Career theories discussed in previous sections have used cross-sectional, case-study, typological, and developmental approaches. Career counselling skills may further be enhanced using concepts and techniques in the backdrop of a more holistic perspective, which even transcends the established developmental models. Geysbers and Moore (1975) point out that most of the developmental approaches "still separate individuals' work roles, settings, and events in their lives. Because of the increasing complexity and inter-relatedness of all aspects of society, it no longer seems possible to clearly separate one role from another, one setting from another, one event from another". They, thus, propose that "the meaning of career be expanded to encompass individuals' total lives. Deriving support from Jones et al (1972), Geysbers and Moore (1981, 1987) have proposed the model they have titled as *Career-Conscious Individual Model* which reflects new and more holistic ways of looking at and understanding human growth and development. The model, they contend, is an outcome-oriented model designed to provide a comprehensive overview of the knowledge, skills, and attitudes (competencies) individuals use to facilitate their development. They have adopted Reich's (1971) description of how consciousness functions among individuals. Consciousness, according to him, consists of a person's background, education, politics, insight, values, emotions, philosophy, and is more than the sum of these. It is the whole man, his "head", his way of life. The individual creates his whole life by his consciousness and thus creates the society in which he lives.

The process of guiding career development, according to Geysbers and Moore, is the process of helping individuals reach their potential by stimulating career consciousness. It consists of the individuals to visualize and plan their lives through projecting themselves into

possible life roles, settings and events; analysing these roles, settings and events, and relating these findings to the present situations.

The career conscious individual model is based on *life career development* concepts and principles. Life career development is defined as self development over the life span through the integration of roles, settings, and events in a person's life. The word *life* here indicates the total person, the human career. The word *career* identifies and relates the many and often varied roles in which individuals are involved, the settings in which individuals find themselves; and the events that occur over their life times. 'Career" focusses on all aspects of life. The word *development* is used to indicate that individuals are always in the process of becoming. Life career development, therefore, describes total, unique individuals, each with his or her own life style (Geysbers and Moore, 1975).

Following this model, one needs to understand and interpret client information and behaviour in terms of client's goal or problem, his/her view of himself/herself and his world view. Blocher (1980) contends that it is important to identify and analyze life career themes. In his words, "As evidence mounts regarding the inter-relationship between human cognitions and emotional arousal, counsellors must be concerned with how clients think about themselves and the crucial events in their lives. Literally, what clients say to themselves may be the crucial mediating processes in their lives".

To these mediating processes, Geysbers and Moore (1987) have further added: "What clients say to themselves *about themselves, others, and the world in which they live and the language they choose to represent these views*". Kelly (1955) uses the term "personal construct" to explain the ways clients use to construe the world. The individuals, he says, look at the world through self-created transparent patterns or templates in order to make sense out of it. Through interpretation of such personal constructs or *life career themes* that the clients use to understand themselves, others, and their worlds, one can understand client behaviour. Life career themes, then, according to Geysbers and Moore are words that people use to express their ideas, values, attitudes, and beliefs about themselves (*I am statements*), about others (*Others are statements*), and about the world (*life is statements*).

For interpretation of these life career themes, they advocate organizing them according to some known systems. Such classifications as Holland's (1990) 'Personality and Environmental Types'; Prediger's (1976), Data-ideas-people-things; Bolles' (1981) 'Skills identification'; Canfield's (1977) and Kolb's (1976) Learning styles; Dinkmeyer, Pew, and Dinkmeyer's (1979) 'Personal Roles', etc. Knowledge from the field of physiology and anatomy of brain and nervous system, specifically, hemispheric functioning has also been used to interpret varieties of preferences and skills.

A great deal of importance is attached to studying the relationship between individual and his/her environment, for which it is suggested to conduct 'Life Career Assessment' to generate life career themes used by clients as ways of negotiating with the world. The themes the individuals use are considered to constitute a life-style. Geysbers and Moore have further suggested 'Personal Styles Analysis' and 'Occupational Card Sorts' as techniques to identify predominant themes in individual's life.

Geysbers and Moore's 'Career Conscious Individual Model' is, thus, a practical guide to career counselling, an aid to generating and interpreting data about people, to creating awareness about their relationship with the world outside, and their preparation of 'comprehensive, developmental, person-centred and person-directed and competency based (Geysbers & Moore, 1987) career plans.

### SOME RECENT DEVELOPMENTS

The fact that most of the theories have studied fragmented aspects of career behaviour and development suggests that there is a need for more comprehensive and inclusive theories which will cover special groups like women, minorities, and the handicapped, besides covering the total life-span which is the recent emerging perspective in some of the theories with a focus on life-cycle approach. Super's developmental-stage model and his emphasis on life role-salience, falls short of an adequate explanation of adult career development stages. In principle, the life-cycle approach as suggested by Levinson and others (1978), Sheehy (1974), and Vaillant (1977) "focusses the dynamic

evolution of people, their families and careers over a life time" (Sonnenfeld and Kotter, 1982).

There is also the feeling that greater importance needs to be assigned to contextual and sociological factors such as socialization practices and the role of self-efficacy beliefs, and the social groups such as race, sex, social classes etc. as against over-emphasis on psychological variables. A theory, to be close to a given socio-cultural situation, should draw upon the economic, political, and social issues affecting the future of youngsters from various groups and sectors of our society. For example, reservation policies for socially and physically handicapped groups may amount to their access to opportunities which would have, in normal course, gone to others. On the other hand, innovative practices to accommodate ethnic and other types of social groups by opening up greater and locally suited avenues may enhance employment potential for all concerned.

On the specific issue of women's career development, the child-bearing and home-making role that they play should be accommodated as an integral aspect in the whole process, like other family and social obligations that individuals tend to meet. Making home-making as a central theme, like Super (1957) has suggested or Zytowski's (1969) contention about home-making and career roles as being mutually exclusive are both narrower in outlook.

Briefly, in this chapter, an attempt has been made to establish that career behaviour can be best understood following one or more theories or models. These theories rest on philosophical pinning of logical positivism of physical scientists, though of late, emphasis among social scientists is shifting to subjective frame of reference. Criteria for evaluating such theories have been formulated. The other bases for formulating theories have varied from rational beliefs about putting square pegs in square holes and matching 'personality types' with work environment to more dynamic and developmental approaches giving weightage to inner drives, growth processes, and contextual variables impinging upon the evolving choice process. The life-stage concept has been advantageously used to delineate different periods over the life span. Concepts from differential psychology, occupational psychology, developmental psychology, personality theory, and learning theory

have been adopted to explain various career development phenomena. The theorists have generally taken cognizance of possible behavioural outcomes of the interplay of a host of factors, both within and outside the individual, including impact of early childhood experiences on personal orientations. A more holistic approach using 'career conscious individual model' has been successfully used. The wholeness of the individual here consists of knowledge, skills, and attitudes combined with one's perceptions of future roles, events, and situations, making life career development a more inclusive and comprehensive phenomenon.

In the end, there is focus on some recent thinking on making career theories more comprehensive to include explanations to account for career development of groups which are different on social, ethnic, and physical factors.

## Chapter 5

# CAREER MATURITY

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*Vidhu Mohan*

The problems of choosing, preparing for, and entering into careers have existed since the dawn of civilization. Vocational (Career) psychology is the branch of psychology which endeavours to study these problems logically and without bias. Career maturity and career adjustment are assumed to be the behavioural units of analysis of greatest importance in career psychology. Mature career preferences, interests, aspirations, and choices are important components for developing vocationally mature behaviours of an individual.

### CAREER CHOICE : A DEVELOPMENTAL PROCESS

The concept of vocational choice as a developmental process has its origin in the early work of Carter (1940). He concluded that the formation of interest patterns in adolescence progresses in the late childhood which ensures mature realistic solutions to problems of youth and adulthood. Ginzberg et al (1951) introduced the idea that vocational choice is a continuous process which remains in existence for a prolonged period. In this developmental framework, career behaviour refers to the responses that an individual makes in selecting a career and adjusting in it. It is considered a continuous fluid process of growth and learning, including self-concepts, developmental experiences, personal history, and psycho-social environment as major determinants of career choice. According to Crites (1961, 1969)

*vocationalization or vocational development* can be considered analogous to a more familiar term *socialization*. The process of vocationalization denoting psychological, sociological, cultural, and economic ingredients across times results in outcomes which are effective in vocational behaviour, decision-making ability, and vocational maturity. Super's (1957) view is that vocational development is one aspect of the individual's progress which is as essential as social, emotional, and intellectual development. Career development is self-development viewed in relation to choice, entry, and progress in educational and vocational pursuits (Tiedeman and O'Hara, 1963).

The development of a person through stages of maturity parallels the educational and vocational choice process. These two processes interact with each other. In the continuity of career development, educational and vocational choices are seen as a series of acts forming crucial factors for personal development. The personality of an individual has an essential influence on decisions, as picking up a choice behaviour involves a series of inter-dependent decisions which are, to some extent, irreversible and are intimately tied to an individual. These decisions occur or are taken with determination at various stages. Super (1957) concluded, "an individual is, more or less, conscious of his vocational decision-making, depending upon the stage of his development".

### *Concept of Career Maturity*

Career maturity has emerged as a significant concept in the recent history of career psychology under the broader field of guidance and counselling. The concept of career maturity was introduced by Super (1955) who called it vocational maturity and defined it conceptually as "the place reached on the continuum of vocational development from exploration to decline". Career maturity is thus the degree which one has reached in cognitive, emotional, and other psychological factors whereby one acquires the capacity of making realistic and mature career choices. The concept of career maturity became popular through the famous *Career Pattern Study Monograph II* entitled "The Vocational Maturity of Ninth Grade Boys" (Super et al., 1960). This

longitudinal study extending over a period of 21 years and involving ninth graders to begin with, consisted of an analysis of the maturity of vocational thinking, behaviour, abilities, and traits of high school boys, their transition from school to work and other exploratory behaviours.

Ginzberg et al, (1951) maintained that "to some degree the way in which a young person deals with his occupational choice is indicative of his general maturity and, conversely, in assessing the latter, consideration must be given to the way in which he is handling his occupational choice problems". Crites (1973) first coined the term 'Career maturity' when he published the Career Maturity Inventory (CMI). Crites (1961) described it as "the maturity of an individual's vocational behaviour as indicated by the similarity between his behaviour and that of the oldest individual on his vocational life stage".

Super et al, (1957) differentiated Vocational Maturity I (VM I) from Vocational Maturity II (VM II). They define Vocational Maturity I (VM I) as "the life-stage in which the individual actually is, as evidenced by the developmental tasks with which he is dealing, in relation to others of his age", and Vocational Maturity II (VM II) as "maturity of behaviour in the actual life-stage, regardless of whether it is the expected life-stage as evidenced by the behaviour shown in dealing with developmental tasks of the actual life-stage compared with the behaviour of other individuals who are dealing with the same developmental tasks". To establish standards for evaluating VM I, the vocational developmental tasks characterizing each life-stage must be identified and for that of VM II, variations in behaviours in dealing with the developmental tasks of each stage must be identified, and the frequency of the behaviour must be noted" (Super and Over Street, 1960).

#### *Viewpoints on Career Maturity*

Besides the developmental emphasis in viewing career decision making, a number of other viewpoints have contributed to understanding of this phenomenon. The major approaches in this regard are:

1. *Trait and Factor Approach:* Parsons (1909) and Kitson (1925) described the factors by which people differ and the degree to which

these factors are important in learning the job performance. Human personality is a constellation of traits which can be observed or measured. Different occupations or learning situations can be described in terms of their unique requirements for different combinations or 'quantities' of these individual characteristics. Occupational choice (vocational development) is primarily a function of matching the person's profile of characteristics with that set of occupational or educational requirements most closely related to it. The closer the congruence between an individual's characteristics and the requirements of occupational or educational options available, the more likely it is that adjustment and success will result. Though the approach is helpful, the system assumes, as Osipow (1983) contends, that a straight-forward matching of an individual's abilities and interests with the world's vocational opportunities can be accomplished and once accomplished solves the problem of vocational choices for that individual.

**2. Decision Theories:** Decision theories (Katz, 1963; Hills 1964; and Clarke, Gelatt and Levine, 1965) postulate that an individual chooses an educational or occupational goal that minimizes his/her chance of loss. What each individual values or considers gain or loss is likely to be different in degree and kind. The gain or loss is not only monetary but anything considered valuable by an individual. A given occupation or an educational opportunity might be considered a means of achieving many different possibilities — among them are greater prestige, security, social mobility, leisure time — when compared to another course of action.

**3. Sociological Theories:** Sociological theories (Lipsett, 1962; Borow, 1966; and Locasio, 1967) suggest that narrowness or wideness of an individual's culture or social class boundaries have much to do with the choices a person is likely to consider, make, or implement. The information and the encouragement the lower class receives in relation to educational opportunities or occupational alternatives is different from those available to the middle and upper socio-economic classes. The vocational and life preferences of people across social and economic class lines may be similar, but their expectations of being able to achieve such preferences are likely to differ. To the extent that

such expectations are realistic, individuals might be considered to be more career mature.

4. *Need-Drive Theories:* The basic assumption of need-drive theories (Maslow, 1954; Roe, 1956, 1990; Holland, 1985; and Zaccaria, 1970) is that because of differences in personality structure, persons develop specific needs and seek satisfaction of these needs through occupational choices. It is further assumed that different occupational or, indeed, curricular areas are populated by people with different needs and personality types. Career maturity is reflected in one's ability to acquire an optimum fit between his personality type and occupational environment.

5. *Developmental Approach:* The developmental focus in occupational choice rests on the belief that "vocational decisions and adjusting vocationally are processes—that is, they are a series of related behaviours rather than a limited number of discrete acts and they are behaviours which change with time, generally in the direction of increasing complexity and greater specificity. (Super et al, 1960). There are different opinions regarding what developmental stages consist of. Ginzberg et al (1951) identified the "maturational stages" phenomena in which certain systematic and predictable series of tasks relating to choice-maturing processes are ultimately faced as a function of the changes in maturity that occur during adolescence by individuals. The stages were called fantasy, tentative, and realistic. As an individual matures he copes with the tasks, self-insights, and information about alternatives available to him in different life-periods. There is a persistent compromise between wishes and possibilities. The synthesizing and compromising process defines and narrows down the range of choices of a particular individual to be considered. They also identified four sets of factors which interplay to influence the vocational choice-maturing process—individual values, emotional factors, the amount and kind of education, and the impact of reality imposed by environmental pressures.

Tiedeman and O'Hara (1963) and Miller-Tiedeman and Tiedeman (1990) view career development as a function of the developing self becoming increasingly differentiated and comprehensive. Crucial decisions occur at stages such as high school, college, marriage, and

taking one's full-time work position. The decision-making process evolves through the stages of anticipation, exploration, crystallization, choice, and clarification etc. The basic point is whether the ideas about anticipated work are congruent with the reality of an occupation when the person is induced into it. A person modifies his/her self concept to accommodate job expectations and the job demands. If these demands are not so dramatic, induction is successful. If induction requires accommodations beyond the limits of a person's tolerance or beyond those permitted by the self-concept, the process of exploration and anticipation will be reinstated as an individual moves towards occupational maturity. According to them vocational development and maturation is a continuing process of differentiating ego identity. They used Erikson's (1963) model of psychosocial crises encountered at various developmental stages as an explanation for differences in vocational maturation. They also indicated that a person's personality is shaped by career choices in conformity with norms and values of his/her vocational maturity. There is a force in this view that the intimate interaction of the self-concept and career concept development also mature over time through a number of small decisions.

Dysinger (1950) emphasized that negative decisions play an important role towards the choice of an occupation. He focussed his attention upon the fact that the making of a vocational choice is not necessarily a good criterion of whether an individual is developing normally in his life. People do make choices prematurely. At each stage, there are negative decisions, and positive choices often follow a series of negative decisions.

Gribbons and Lohnes (1968) examined the concept of readiness for vocational planning used as a measure to identify a person's stage of maturity during adolescence. They identified eight dimensions which correlate to a high degree with this measure at the eighth grade and at post-secondary school levels which otherwise might be subsumed by the concept of vocational maturity. Gribbons and Lohnes found that vocational maturity increased from grades VIII to X.

Beilin (1955) attempted to demonstrate as to how developmental principles, such as the pre-eminence of behaviours at certain points in a person's life, level of maturity, differentiation and integration of

behaviour etc. apply to the analysis of changes in vocational behaviour with the increasing age. Kathuria (1974) demonstrated the effect of informal experience in enhancing vocational maturity and lowering vocational indecision.

6. *Super et al's Developmental Model of Career Maturity:* Super's approach has attempted to integrate insights from differential, developmental, social and phenomenological psychology to explain vocational behaviour. He described that human maturational process first leads to primary self-concepts and then to the secondary percepts. With maturation, the system of self concepts becomes even more complex and abstract. Super proposed that the person strives to implement his self-concept by choosing to enter an occupation which he finds most suitable to permit self-expression. The vocational self-concept is implemented by the individual, depending upon the external conditions available to him. Super (1953) considered that vocational development is a continuous process of maturation involving formation and implementation of vocational self-concept. It is a compromising process affected by biological heritage, personal and social determinants, opportunity to play various roles, and feedback. Maturation of self-concept takes place in stages of maturity relating to approximate ages of growth (birth-14), exploration (15-24), establishment (25-44), maintenance (45-64). These stages may be split into (a) the fantasy, tentative, and realistic phases of the exploratory stage and (b) the trial and stable phases of the establishment stage. These stages comprise developmental tasks indispensable for an individual's achieving and maintaining vocational maturity. Vocational maturity refers to the manner in which people cope with the tasks commensurate with their life-stage.

#### *Dimensions of Career Maturity*

Super and Overstreet (1960) state that in conceptualizing career maturity, they used three of the developmental psychology principles viz; (i) development proceeds from random, undifferentiated activity to goal-directed specific activity; (2) development is in the direction of increasing awareness and orientation to reality; and (3) development is from dependence to increasing independence. With these principles as

guidelines, Super et al, constructed a framework for their research under Career Pattern Study which included the following dimensions:

1. *Orientation to vocational choice* consisting of concern with choice, use of resources, and general occupational information.
2. *Information and planning about preferred occupation* consisting of specificity of information one has about his/her preferred occupation, the specificity of planning that the individual has done for his/her preferred occupation, and whether the individual has a vocational preference.
3. *Consistency of vocational preference* is the extent to which one's vocational preferences are consistent over a period of time, within occupational fields, within occupational levels, and within occupational families.
4. *Crystallization of traits* including indices such as interest maturity, vocational independence, realism of attitudes toward work, degree of patterning of measured interests, and work values.
5. *Wisdom of vocational preferences* consisting of the relationship between preferences and abilities, activities, and interests.

Intercorrelations between indices and other empirical treatment of the data on the proposed dimensions and indices revealed the appropriateness of only a few indices for the ninth graders. The six indices thus selected were (i) concern with choice, (2) acceptance of responsibility, (3) specificity of information, (4) specificity of planning, (5) extent of planning, and (6) use of resources. First five of these indices constituted one dimension of 'Orientation to Vocational Choice Tasks'. Factor analysis revealed five factors underlying these indices viz., (1) planning orientation, (2) independence of work experience, (3) long view ahead, (4) short view ahead, and (5) intermediate view. Super and Overstreet (1960) however, concluded that only one major dimension had been established which "is primarily orientation to the need to make educational and vocational choices including acceptance of responsibility for choosing and planning, and a planning and information getting approach to the orientation and choice process; it is essentially planfulness".

Later, Super and Thompson (1979) gave "six psychologically meaningful dimensions", which were arrived at using research data on Career Development Inventory Form III (1971). These dimensions are:

1. Extent of planning referring to planfulness;
2. Use and evaluation of resources in exploration;
3. Career decision making — referring to the student's knowledge and application of career decision making principles;
4. Career development information;
5. World of work information; and
6. Information about the preferred occupation.

Earlier, Super (1955) specified the dimensions of career maturity such as orientation to vocational choice, information and planning about preferred occupation, consistency of vocational preferences, crystallization of traits, and wisdom of vocational preferences.

"An individual's vocational maturity, then, can be defined by his standing along these dimensions in relation to either chronological age and expected life stage or the behaviour of others coping with the same developmental tasks" (Super et al, 1957).

Crites (1965, 1973, 1978) has elucidated a hierarchical model of career maturity as a conceptual scheme derived from Super's dimensions of vocational maturity. It is based on Vernon's (1950) model of intelligence. It has been hypothesized that developmentally the trend should be towards differentiation of specific behaviours (Super and Overstreet, 1960; Crites 1973, 1978). At the highest level is the general factor representing common variance among the group factors and defines overall "degree of career development". At the most specific operational level are the variables which mature during adolescence. Under the general factor of 'Degree of Career Development' Crites has postulated four group factors viz; (1) consistency of career choice, (2) realism of career choice; (3) competencies for career choice, and (4) attitudes in career choice. The first two of these he calls content variables and the last two, the process variables. These are discussed below:

**Consistency of Career Choice:** If career choices are elicited on two or more occasions. They must consistently fall within the same field, or belong to nearly the same level. Questions like "what do you plan to enter" can elicit such information which may then be classified e.g. according to Roe's (1956) Field-Level classification, for the purpose of having a classification scheme. The expectation is that, if consistency of career choice is a dimension of career maturity then the developmental trend across age and/or grade should be from lesser to greater consistency.

**Realism of Career Choice:** Realism refers to the correspondence between the preferred careers (classified e.g. in terms of Roe's Field-Level classification) and the abilities, interests, level of responsibility, etc. which are the pre-requisites of these careers that the individual possesses. Extent of realism will depend upon the extent of correspondence between the personal and job variables with reference to the field of activity, level of performance or responsibility, or both. The realism of career choice is expected to increase with age and/or grade.

**Career Choice Competencies:** This consists of five variables. *Problem-solving* intends to assess the ability to resolve conflicts among the factors usually involved in career decision-making. *Planning* evaluates the task of logical and temporal inconsistencies in the step leading to various career goals. *Occupational information* includes items on job duties and tasks, trends in occupations, and future employment opportunities. *Self-appraisal* involves a process of making hypothetical judgements of a person's assets and liabilities for career success and satisfaction. *Goal selection* requires an individual to choose the 'best' (most realistic) occupation for a fictitious individual who is described in terms of his/her aptitudes, interests, and personality characteristics. The functions or processes which are involved in taking the competence sub-tests, may be designated as comprehension and problem-solving abilities pertaining to the career-choice process.

*Career Attitudes:* The attitudinal variables in an individual are the conceptual or dispositional response tendencies of career maturity, enabling him to make a career choice to enter the world of work. The attitudinal factor is non-intellective in nature and may mediate both career choice consistency and realism as well as career choice competencies. This factor consists of five variables: (1) involvement in the career choice process, (2) orientation towards work, (3) decisiveness, (4) independence in decision-making, and (5) compromising tendencies.

The above descriptions highlight that career behaviour is complex like all human behaviour and is a part of the total fabric of personality development. It finds its roots in the early life of a person and develops over a period of years. Individuals will differ in their readiness for various elements of vocationalization in developing career mature behaviours. Different individuals will neither reach the same point of maturity at the same time nor will they proceed at the same pace. Career behaviours become increasingly reality-oriented and more specific as one moves towards maturity. It can be pointed out that career maturity is a fabric of many threads composed of an individual's personal history, extrinsic and intrinsic factors in the environments conveying values and encouragements differently about educational and occupational options. Thus, career maturity is a maturing process of learning about oneself, one's choice options, or the both.

#### *Assessment of Career Maturity*

Assessment of career maturity is imminent in any discussion on the topic, or in attempts at organizing career counselling programmes. The construction or development of career maturity tools has been facilitated by career development theory and research. Guides and manuals to career development instruments have been available in the West (Kapes & Mastie, 1982, 1988; Thompson et al, 1981; Krumboltz and Hamel, 1982; Super, 1974; Crites, 1978) as also in India (Chand, 1979; Gupta, 1989). Assessment of career maturity forms part of a developmental assessment model for career development assessment and counselling (Super, 1983). In the following sections some of the well recognized tools for measuring career maturity are described.

***Career Development Inventory (CDI):*** The first in the direction of measurement of career maturity, the Career Development Inventory (CDI) was developed by Super et al, (1971) based on his model of career maturity. The inventory covered three major dimensions of (1) Planning Orientation, (2) Resources for Exploration, and (3) Information and Decision Making. In later research using the CDI, Super and Thompson (1979) arrived at some more dimensions given under dimensions which have been covered in Super et al's (1981) revised version of the CDI. This revised edition covers all the six psychologically meaningful dimensions and yields eight scores: career planning, career exploration, decision-making, world of work information, knowledge of preferred occupational group, career development attitudes, career development knowledge and skills, and career orientation total. In the user's manual of this test, Thompson et al (1981) state that the career orientation total score "approaches a measure of vocational maturity".

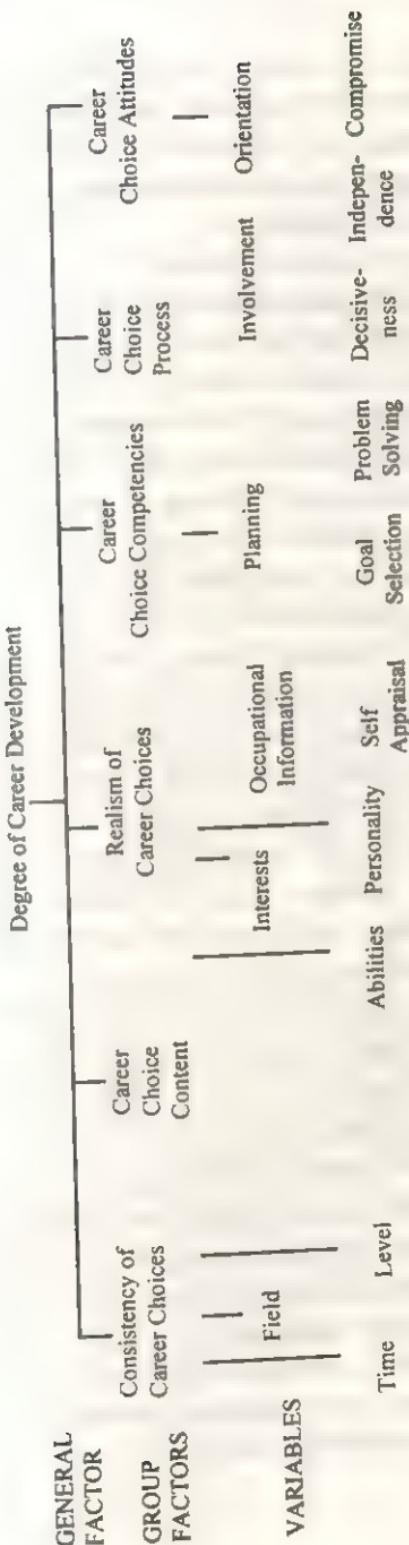
The CDI has a School Form designed for use in senior high schools and a College and University Form, for use in higher education. The forms are similar in rationale and structure; they differ in item content.

***Career Maturity Inventory (CMI) (J.O. Crites):*** The CMI was published by Crites (1973), based on career maturity dimensions as proposed by Super and Overstreet (1960). Crites reorganized these dimensions of career maturity into a model of vocational maturity (Crites, 1965) discussed earlier in this chapter. The CMI consists of the *attitude scale* (Screening Form and Counselling Form) and the *competence test* and includes variables outlined in his model of career maturity (Figure 5.1).

Extensive research evidence using the CDI and CMI have appeared in articles by Super (1990) and Osipow (1983) in their discussions on the utility and validity of developmental models of career development and the assessment tools based on these models.

***Career Maturity Inventory (CMI) (N. Gupta):*** The CMI (Crites, 1978) was "adapted in Hindi with minor modifications in language and item contents to make it suitable for assessing career maturity of Indian school students" (Gupta, 1989). The inventory thus, essentially covers

**Figure 5.1**  
**A Model of Career Maturity**



Source: Crites, John O. Theory and Research Handbook. 1Ind Ed., CTB/McGraw-Hill, 1978.

the constructs and dimensions included in the original CMI. The content and construct validity, and the reliability of the adapted attitude scale and competence test have been reported by the author. The manual contains norms for a sample normative data for classes VIII, X, & XII for students of Delhi region.

*The Cognitive Vocational Maturity Test (CVMT):* The CVMT (Westbrook, 1970; Westbrook & Parry Hill, 1973) is designed to measure variables classified in the career choice competency group of Crites (1965) model of career maturity. The basic components of this test (Westbrook, 1982) are (1) Job Selection, (2) Work Conditions, (3) Education Required, (4) Attributes Required, (5) Duties, and (6) Total Score. Westbrook (1982) has proposed adding several other vocational maturity variables such as career indecision, career salience, career decision-making principles, involvement, self-knowledge, independence, and planfulness.

*Readiness for Vocational Planning (RVP):* The RVP (Gribbons & Lohnes, 1968) is prepared to yield eight scores based on eight types of information elicited during a thirty to forty minute interview. Each type of information represents a different aspect or dimension of vocational maturity. They are: (1) factors in curriculum choice, (2) factors in occupational choice, (3) verbalized strengths and weaknesses, (4) accuracy of self-appraisal, (5) evidence for self-ratings, (6) interests, (7) values, and (8) independence of choice. The scores on the scales are expected to rise along with grades.

Among other psychometric instruments which can be used in assessing clients' career decision-making skills are Self-Directed Search (SDS) (Holland, 1977, 1979, 1985), Vocational Preference Inventory (VPI) (Holland, 1985); Work Values Inventory (Super, 1970), and Study of Values (Allport-Vernon, Lindsey, 1970). Mitchell and Krumboltz (1990) have discussed an instrument to evaluate the task approach skills actually used to arrive at a decision; namely, the Vocational Exploratory Behaviour Inventory. They also suggest using career decision-making simulations for assessing task approach skills. For example, the life Career Game (Boocock, 1967) asks players to make decisions about time management, college, jobs, and marital and family planning for a fictitious individual.

### *Factors Affecting Career Maturity*

The process of career maturity is influenced by many environmental and psychological factors.

#### *Environmental Factors*

##### *1. Culture*

The cultural milieu in which an individual lives, affects his freedom to choose indirectly by exerting the influence of the existing social patterns. Various conditions and modes of living in different cultures induce their members to take up jobs, in consonance with their prevailing systems and values structure (Madan, 1984).

##### *2. Social Class*

The adolescent's social class affects his vocational development by its influence on his becoming the kind of person he is and by the effects of the general socio-economic milieu of the family on the young persons' attitudes, values, opportunities, and the reactions of others towards him" (Jersild, 1967). Dillard (1976) and Gupta (1991) found that socio-economic status of family was the best predictor of vocational maturity. There were significant differences in the vocational maturity of urban-lower, urban-middle, and sub-urban middle class black males (Dillard, 1976).

##### *3. Family*

Family structure and function are inextricably inter-woven with the economic and the vocational pursuits of persons (Luckey, 1974). Parlikar, (1973) demonstrated that family adjustment was associated with overall vocational maturity among class IX and XI boys and girls. He also found a positive relationship between mother identification and measured vocational maturity among grade XI girls. Parental education, family harmony, parent-child interaction, all affect career maturity of an individual. It has been seen that most of the vocationally immature children come from semi-educated parents. McNair (1981) indicated that the best set of predictors of vocational maturity was parental influence.

#### *4. School*

A young person's relationship with school and work has its origins in the developmental context within which the processes of learning and decision making take place, what has been called "vocationalization" (Crites, 1969; Herr and Cramer, 1972). The children mature through a variety of experiences e.g. formal, informal, curricular, co-curricular and extra-curricular programmes during the school period. McCaffrey (1980) found that students who had a high degree of participation in those extra-curricular activities which emphasized individual responsibility and a positive response to social expectation were more likely to evidence high levels of vocational tasks and dimensions as correlated with vocational behaviour.

#### *5. Ecological Factors*

It is expected that individuals from rural areas lag behind in career maturity from individuals in urban areas due to lack of adequate opportunities. Elutain (1979), however, found that IX grade students in an urban area of Alaska scored significantly lower on 'Self-Appraisal' sub-test of CMI (Crites, 1978) than did freshmen students surveyed in two rural areas of the state. Conversely, the urban freshmen scored significantly higher on their 'Information and Planning' than did their rural counterparts. Differences between sub-cultures demonstrated along geographical and residential lines are often reflected in the vocational growth of an individual.

#### *Psychological Factors*

Psychological factors work as catalysts for environmental factors and, however, are essential factors in themselves.

##### *1. Personality*

Personality has been studied extensively in the domain of vocational psychology since the time of Parsons (1909). Career maturity seems to be a reflection of general personality development. Bartlett's (1968) findings show that the development of vocational behaviour is analogous to the development of mature personality characteristics. Ahuja (1985) found positive correlations between

measures of career maturity and extraversion. Gupta (1991) found a positive relationship between some personality factors and career maturity. Kathuria (1974) did not find any significant differences in the anxiety scores of vocationally decisive and undecisive undergraduate females. Parlikar (1973) found inconsistent evidence on dimensions of neurosis, self-sufficiency, introversion-extraversion, and dominance submission.

Individual's self-concept is considered as one of the most basic and crucial components of personality. Positive self-concept, self-esteem, ego-development, self-actualizing components, personal adjustment, career adjustment, personality adjustment, and lower stress are required for healthy adjustment. Career development constitutes an aspect of personal development which is intimately linked to the formulation and consolidation of mature self-identity.

## *2. Sex*

Studies examining sex differences on vocational maturity variables have established that girls are more vocationally mature than boys (Super and Nevill, 1984). Evidence is available also that there are no significant differences among boys and girls in vocational maturity with regard to school samples (Chand, 1979). Gupta (1991) and Parlikar (1973) however found sex differences on various dimensions of career maturity. Overall research evidence is inconclusive and suggests the need for controlling some intervening variables to arrive at more reliable findings.

## *3. Intelligence/Mental Ability*

The importance of mental ability in career development and in achieving career maturity has been traced by many researchers. Westbrook (1983) reports correlations between measures of career maturity and mental ability measures as revealed in researches to be ranging between .08 and .86 with a median of .54. Gupta (1991) found intelligence to be the most significant variable contributing to the prediction of career maturity. Parlikar's (1973) findings have similar indications.

#### **4. Aptitudes**

The success of a person in a job or vocational setting depends on his special abilities and his motivations. Research evidence attempting to relate aptitude and vocational maturity is very limited. Cosby (1974) concluded that subjects with high levels of intellectual maturity tended to be more vocationally mature than others with lesser mental abilities. Mohan and Brar (1988) found the technical personnel under training to be superior in space relations, numerical ability, abstract reasoning, and mechanical reasoning than industrial workers, and a positive correlation existed between these aptitude scores and academic achievement - practical as well as theoretical.

#### **5. Academic Achievement**

The importance of academic achievement in the field of vocational psychology emphasizes the need to examine closely the nature and the relative role of academic performance in relation to vocational maturity. It is a well established fact that those students who have better academic records tend to be vocationally more mature individuals than those whose academic achievements are poor (Cosby, 1974; Parlikar, 1973). Westbrook (1983) reports such correlations revealed in studies to be ranging between -.10 to .77 with a median of .57. Different subjects of study have, however, been found to have different effects on the attitudes and competencies (vocational maturity) which ultimately help in the development of a realistic self-image of an individual. The horizon of educational and vocational development is based on academic performance which helps to determine vocational maturity.

Environmental and psychological factors are helpful in developing a realistic educational and vocational self-perception of an individual. They help in the maximum possible development of different selves and integration of these into a harmonious system. The integrated person displays an effective balance in his behaviour. Vocational maturity is the result of an interaction of environmental and psychological variables.

*Implications of Career Maturity for Career Counselling*

The usual emphasis in vocational counselling has been on preparing an 'aptitude people' to match with the 'job people'. Such static and rational approaches to counselling do not go into the motivational aspects, beyond trying to match some of the personality aspects with job requirements. The life-stage concept used in career maturity makes it a truly developmental model which is helpful in delineating the developmental tasks the client has already mastered, and wherefrom the counsellor can help the client move ahead in the process of their career planning and mastering appropriate career development tasks. The instruments for assessing career maturity provide specific areas of counselling intervention.

In summary, career maturity as a concept is a sequel to the emphasis on career development as a process and a continuum on which the individual's status at a given point in his life span can be ascertained. Other emphases in this respect are the matching approaches which say that adjustment in career is maximum if there is congruence between the individual's traits, needs, drives, socialization, etc. on the one hand and work on the other. Such personal and environmental factors affecting career maturity have been identified and research evidence proving/disproving the role of such factors is available.

Dimensions and indices as norms to evaluate career maturity have been established. These relate to formation of attitudes and competencies conducive to career mature behaviour. Using these dimensions and other approaches, tools to measure career maturity have also been developed.

## Chapter 6

# CAREER ADJUSTMENT

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*A. Vasantha*

The term career adjustment has different connotations. There are psychological, sociological, and non-psychological concepts and definitions of career adjustment. Common to all of them is the idea that vocational adjustment refers to the state or condition of the individual in relation to the world of work at any given moment after he/she entered an occupation (Crites, 1969). Thus, two aspects are involved in career adjustment — the individual and the work component.

### *Concepts of Career Adjustment*

During antiquity when work was considered a burden, being vocationally adjusted meant, by and large, being fortunate enough to be a member of the leisure or ruling class. Economists, inspite of their concerns with such variables as conservation of human resources, labour mobility, unemployment etc. which involve man-work relationship, have not given much attention to the problem of conceptualizing and defining vocational adjustment. Sociologists, on the other hand, focus upon the work group and its organization and functioning instead of the worker who is a member of the group. Several sociologists have conceived vocational adjustment as an interaction between the worker and the role he/she plays in the group. They are not concerned with the economic or psychological aspects of a worker's behaviour on the job.

Sociological studies point out that the adjustment of the individual to his/her work can be brought about by the fusion process which includes (i) socializing and (ii) personalizing. The fusion process involves an interaction between the individual and the organization, which has the effect of changing each, to a certain degree, so that they become adjusted. Through the *socializing process*, organization selects workers through various techniques and educates a worker about his expected behaviour through various training and orientation programmes. Through the *personalizing process*, an individual tries to fit the work role to his personality and he seeks and bargains concessions from the organization to suit his personality needs.

The non-psychological concepts of vocational adjustment consider as unimportant the role of the worker, his/her behaviour in the worker work relationship. They emphasise the factors and systems which are involved in work as an activity and minimize the role of the worker as an agent in the process.

Psychological concepts of vocational/career adjustment, on the contrary, lay greatest emphasis upon the individual in relation to his work. They attempt to analyze and conceptualize the part which his personal characteristics and learning experiences play in how and why he adjusts to his vocation as he does. Initially it was assumed that vocational adjustment varied directly with the extent of agreement between worker characteristics and work demands. This square peg in square hole concept of vocational adjustment was criticized by many which led to major modifications or revisions of this notion.

Thus came the 'worker - in - his - work unit' concept of vocational adjustment which states that the individual and his job cannot be considered separately as pegs and holes. The individual's vocational adjustment is a function of the degree of balance which he achieves among his capacities, interests, and opportunities within the work situation (Scot et al, 1954).

Anderson (1929) focusses upon the non-intellective and personality factors which influence a person's vocational adjustment. He argues that because of these factors rather than lack of ability or aptitude, work failure, (poor vocational adjustment) occurs.

Vocational adjustment is no longer considered as a point-in-time phenomenon. It is considered as a developmental process which begins with entry into the world of work and ends with the advent of retirement and sometimes even extends beyond this.

### *Theories of Vocational/Career Adjustment*

The psychological approaches to understanding career development discussed earlier in this volume have also focussed on 'career adjustment'. The major ones are trait-factor, psycho-dynamic, and developmental approaches. Their treatment of the work-adjustment aspect is in tune with the basic concept of why people work, and the theories of career adjustment have the same advantages and disadvantages as discussed in connection with the theories of career choice/development. For example, work adjustment according to trait-factor theories depends upon the extent of agreement between worker characteristics and the work demands; according to psycho-dynamic approaches, it would depend upon the extent to which psychological processes like motives, drives, and needs are fulfilled at work; and according to the developmental approaches, it is finding opportunities for implementation of the self-concept in a work situation. Hence, concepts of career adjustment are more or less incidental to the formulation of career choice theories. Some theorists, however, have been exclusively concerned with adjustment of the worker in the work situation. Some of the prominent ones among these are the views of Dawis, et al, (1964); Lofquist et al, (1975) and Herzberg et al, (1959, 1966, 1973).

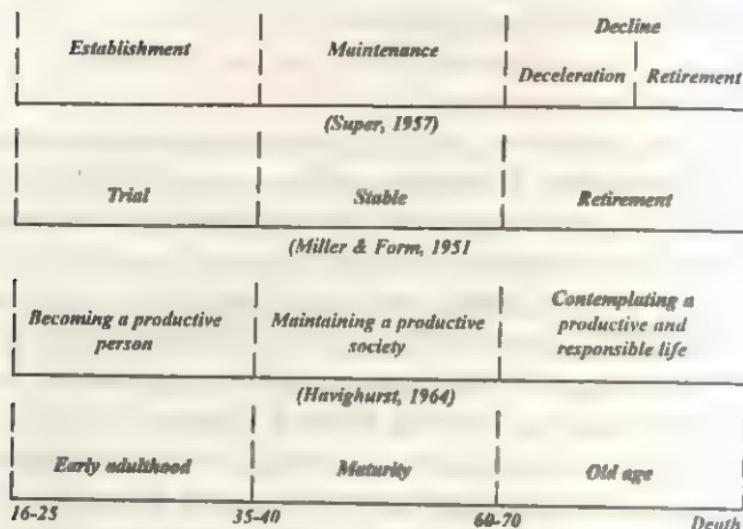
Dawis et al, believe that the "potential reinforces" in the environment such as social and educational experiences give rise to certain abilities and arouse certain needs in the individual, which in turn, determine how he/she will respond to work environment. According to them, the process by which the individual (with his unique set of abilities and needs) acts, reacts, and comes to terms with his work environment is called work adjustment. The major criterion of work adjustment in this theory is whether or not a worker remains in a given work environment once he has entered it. Further, the individual may leave the work environment either because he is no longer "satisfactory", or he is no longer "satisfied" in the work situation.

Herzberg et al's two factor theory emphasizing "Motivators" and "Hygiene" factors contributing to work adjustment has been described in brief earlier in this volume (Chapter 1).

### *Stages in Vocational Adjustment*

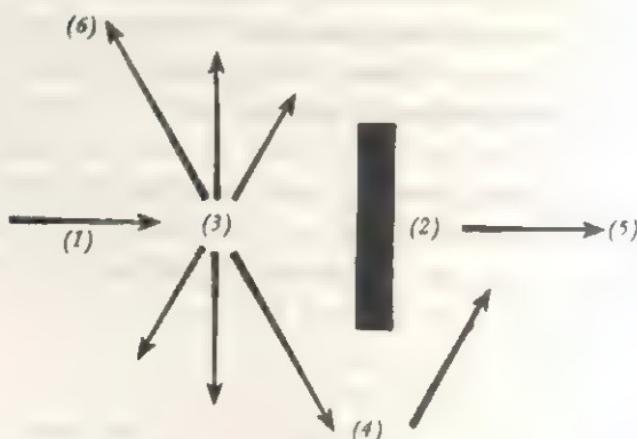
Vocational adjustment can be viewed not only cross-sectionally but also longitudinally. In other words, the components in the process of adjusting to work — motives, thwarting conditions, adjustment mechanisms, and outcomes (success and satisfaction) can be thought of changing as the worker grows older. Several theorists have delineated stages and periods in vocational adjustment. Figure 6.1 depicts the developmental stages in career adjustment as proposed by Super (Super, 1957; Super et al, 1963), Miller & Form (1951; 1964), and Havighurst (1964) in their theories. According to Super, the first stage in career adjustment is *establishment*, a period during which an individual takes up his first full time job and attempts to advance in it. In the *maintenance* stage the worker preserves his self concept in his work and in the *retirement* stage he adjusts to a new self concept. In contrast, Miller and Form focus upon the social adjustments which the individual must make within the work organization as he progresses through the *trial*, *stable*, and *retirement* periods. Havighurst's scheme is a partial synthesis of the above two frameworks, one of which is mainly psychological, and the other sociological. He formulates a psycho-social interpretation of the stages through which the worker passes to become a productive person not only as an individual but also as a member of society. Crites (1969) adopted the general adjustment model of Shaffer & Shoben (1956) to explain the process of career adjustment. Career adjustment is viewed as a process (Bakke, 1953; Super 1951). The model is presented in Figure 6.2.

**Figure 6.1**  
**Developmental Stages in Vocational Adjustment**



**Source:** Crites, John O., *Vocational Psychology*, New York: McGraw Hill Book Company, 1969, p. 536.

**Figure 6.2**  
**A Model for the Process of Vocational Adjustment**



**Source:** Crites, J.O., *Vocational Psychology*, New York. McGraw Hill Book Co., 1969, p. 355.

- a worker is motivated by internal or external stimuli to behave in certain ways on the job (1)
- e.g. seek acceptance from coworkers, strive for prestige and recognition, achieve greater job freedom, etc., when he is thwarted in his behaviour (2)
- either by some external circumstance (frustration) or competing response tendencies (conflict), he attempts to adjust by making some response (3)
- which will eliminate the thwarting conditions or reduce the tension or anxiety they arouse in him. If he makes a response which is effective (4)
- he is readjusted vocationally and experiences either job satisfaction, or job success or both (5)
- if he fails to respond in a way which either temporarily solves or permanently resolves his problem, he will persist in a stage of frustration or conflict and be vocationally maladjusted (6).

### *Career Success and Satisfaction*

Work today occupies a central place in man's life and in modern societies the route to success in life is through one's career. Hence educators and career counsellors are concerned with helping individual achieve success in the world of work and derive satisfaction from their work. Being successful in career as in other undertakings of practical life is a product of many factors. Career success also means different things to different people. It is relative to their aspirations, self-concept, and values. Individual values and hence individual judgements, thus, affect what success of oneself or others means. The concept of success is often associated with one's salary. It is often said, "you are as successful as the size of your pay packet". Furthermore, it is seen that success has different meanings in different occupations and careers. To a company executive success may mean something different from what it means to an artist or a scientist. Each man defines success in his own way.

From the foregoing, it can be seen that a definition of career success is difficult to formulate. One of the major shortcomings in the literature on career psychology has been an inadequate conceptualization of what career success means — both qualitatively

and quantitatively. Several discussions of vocational success have noted that the concept can be defined in different ways depending upon the point of reference which is assumed.

However, it is clear that success is an evaluative concept. Evaluation requires judgement and criteria against which judgements are made. Also, individuals may judge their own success or others may judge it for them.

Crites (1969) has defined vocational success as "the probability that a worker's behaviour will achieve a particular goal in a given work environment". This concept of vocational success, according to him, is both specific and general in nature. It allows for the worker's efficiency to be assessed with reference to his job and also provides for comparison with those of other workers in different jobs.

*Criteria of Success:* English & English (1958) define a criterion as a "behaviour goal by which a progress is judged". Crites (1969) states that criteria must be "relevant" and "comprehensive" in order to serve the purpose adequately. They may be conceptually stated in terms of socially relevant outcomes, or they may be observable events judged to be relevant to the conceptual criterion. Criterion measure must also have some reliability, though not too high, as the criteria may change with career development. Crites also holds that criteria must have "freedom from bias".

If success is to be judged reliably by others i.e. from an 'External Frame of Reference' (Super 1957) the criterion used must be relatively objective and visible to others. The number and variety of criteria which have been used in the studies of vocational success are great and a comprehensive review of them would require an elaborate discussion. The commonly used objective and visible indicators include social variables such as job status or prestige, tenure in the job or organization and work-related role in the organization.

When individuals judge their own success the criteria are not visible to others. Such judgements are relatively subjective internal states or feelings and involve the individual's internalized aspirations and goals. Thus individual perspective of success involves intrinsic measures such as satisfaction in the job, interests, feelings about occupational environments, etc. However, very little is known about

individual differences in feelings about these objective accomplishments as researches are concentrated more on objective criteria than the subjective view of success. Career success from 'Internal Frame of Reference' (Super 1957) termed as 'Job Satisfaction' will be discussed under 'Job Satisfaction' in this chapter.

**Variety of Criteria:** There are several dimensions which have been proposed that might be used for the classification of criteria of career success. Most of these are included under the general titles of time, type, and level dimensions (Weitz, 1961).

### *Time Dimensions*

Thorndike (1947) was the first one to note the importance of time dimension and distinguished among (i) immediate (ii) intermediate and (iii) ultimate criteria depending upon when job performance was evaluated.

The first criteria of career success can be applied at the moment the individual attempts to enter the world of work (e.g. whether he can find a job). The second might include such considerations as whether a worker can successfully complete an on-the-job training programme or whether he is rated satisfactory by his superiors. Ultimate criteria are evaluation of performance on the job following entry and/or training. Examples of such indices of success are volume of sales, number of errors in typing, etc.

### *The Type Dimension*

The type dimension encompasses several different enumerations of tangible criteria. For example, earnings/salary, stability, supervisors judgements/ratings, self-ratings, output records, quantity or quality of output, degree of responsibility would fall under this dimension. Some of these types of criteria may also be cross classified along the time dimension, thus suggesting a two dimensional "time-type" classification system for some criteria of vocational success.

Finally, Thorndike (1947) differentiates between criteria which evaluate performance in a specific task such as a work sample and criteria which represent general summary evaluations of a total phase

or large unit training or on the job performance such as piece work records over a period of time.

### *Level Dimension*

According to Crites (1969), very little attention has been paid to this dimension compared to time and type dimensions. Nevertheless, it is salient for identifying the differences which exist among criteria. Level of performance taken as the criterion may directly affect the conclusions which can be drawn about the relationship of the criterion to other variables e.g. speed of work and accuracy are inversely related.

In conclusion, it may be said that the criterion or definition of career success must vary with the purpose one has in mind. If worker selection is the objective then the criterion used will be different from the one used for evaluating the status of an individual in a job. Depending on the purpose, criteria may be used singly or combined together. Selection and combination of criteria always involves value judgements. One judge may value performance highly, satisfaction little; another may stress status; and a third one satisfaction. It is in this context, Super (1957) feels that it is necessary to redefine success, to use some other terms which allow more room for individual differences in standards and objectives. He suggests that the term 'adjustment' may be an appropriate one.

### *Job Satisfaction*

Satisfaction with work has been variously discussed as vocational satisfaction, job satisfaction, job attitudes, depending upon the context. For purposes of simplification in the present context, the term job satisfaction will be used. When adjustment is viewed from the point of view of the worker, performance and efficiency criteria which constitute the 'external frame of reference', consisting of superiors' or peers' ratings, earnings, social prestige, etc. may not provide very appropriate basis. These criteria contribute to the person's satisfaction with the job if he/she values these outcomes strongly. In this respect career success is deemed to be leading to job satisfaction. Work adjustment when viewed in an 'internal frame of reference', may consist of these and other expectations of outcomes of the individual from work.

Job satisfaction has been primarily viewed in a psychological frame of reference covering aspects and outcomes of work such as pleasure derived from the activity, job attitudes, worker morale, satisfaction with work role, company policies etc. Hoppock (1967) defines job satisfaction as "any combination of psychological, physiological, and environmental circumstances that cause a person truthfully to say 'I am satisfied with my job'". Vroom's (1964) analysis of job satisfaction is based on the concept of 'valence' of the alternative courses of action. Satisfaction, according to him, is conceived to be a function of the extent to which the worker can attain his goals through his job and the strength of his expectancy that he will remain in it. Vroom discusses a variety of job factors like type of supervision and responsibility of decision making, work group as it enables the person to interact with others and is valued by other group members; job content providing for opportunity to work at some level of specialization and responsibility, control over methods or the pace of work, opportunity to use skills and abilities, wages, and hours of work, etc. Many of these factors have been said to be operating (Super 1957) during the individual's efforts to stabilize and establish in a job.

In a different kind of approach to explaining what leads to job satisfaction, Ginzberg et al, (1951) have identified three types of satisfaction in work viz; the intrinsic, the concomitant, and the extrinsic. The *intrinsic* satisfaction comes, firstly, from the pleasure the individual derives from engaging in work activity (function pleasure) and, secondly, it is a sense of accomplishment the individual experiences from meeting social standards of success and personal realization of abilities through achievement. The *concomitant* satisfactions are associated with physical and psychological conditions of work like congenial and comfortable physical surroundings and work cultures etc. The *extrinsic* satisfactions are the tangible rewards of work such as salary, bonuses, etc.

Crites (1969) and Brophy (1959) have categorized various theoretical orientations to satisfaction in work according to need theory (Schaffer, 1953), expectation theory (Kalzell, 1964), role theory (Brophy, 1959), self theory (Brophy, 1959), and cognitive theory (Vroom, 1964). The need theories emphasize that the amount of satisfaction experienced by a worker depends upon the extent to which

need-tension reduction takes place through work; the expectation theory takes into account the perception of the probability of attainment of personal goals. The psychological role theories of satisfaction assume that "satisfaction with a position is determined by the degree of compatibility between one's perceived imposed role and his concept of ideal role for the position" (Brophy, 1959). The self theory consists of some hypotheses on relationship between self-concept and imposed occupational role. And lastly, Vroom's cognitive theory as discussed earlier, utilizes the concept of valence for job.

To conclude, work adjustment is a comprehensive term including success in career judged by social, external, and performance criteria on the one hand, and psychological and subjective criteria on the other. Different views on what both aspects of adjustment mean have been advanced but they all seem to converge on various kinds of motives people have in view when they decide to enter a career and either stabilize or flounder in career accordingly.

## Chapter 7

# CAREER PATTERNS

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*Prabhjot Kulkarni*

Interest in career patterns dates back to the early twentieth century and is affiliated to sociologists' work on social mobility. In the year 1927 Sorokin wrote a treatise on social mobility and a little later Davidson and Anderson (1937) introduced the concept of "Career Patterns" in order to depict work histories of individuals over an extended period of time. They took a developmental approach to studying careers as they got affected by sociological factors like father's education, occupation, S.E.S., etc. Miller (1973) is of the opinion that a career in the industrialized societies, a career in the sense of a stable pursuit of a single occupation throughout the work life of an individual, is becoming increasingly, unattainable, and hence something like 'serial careers' have emerged. The emphasis in the study of careers unlike psychology and sociology of occupations which emphasize characteristics of occupations, is on the continuity and discontinuity in the working lives of individuals and on the patterns of continuity and discontinuity. Ivey and Merrill (1968) use the term "careers process" to describe the "continual changes and the varied developmental tasks in vocational life".

### *"Career" Defined*

Webster's Dictionary defines the term career as a course of continued progress in the life of a person, nation etc. This term is applied to any continuous and conspicuous work in which notable

achievement may be won. Its scope changes inevitably with diverse institutions, activities, and values. Careers, therefore, have much to do with the particular social arrangements of the era in which the individual finds himself.

Drawing a distinction between 'occupation', 'vocation', and 'career', Super (1960, 1967) defines a career as "the sequence of occupations, jobs, and positions throughout a person's working life". As per the International Encyclopedia of Social Sciences "Careers imply a long, if not a life time commitment to moving upward through a series of related occupations and statuses according to a schedule. They are, therefore, associated with situations in which occupational mobility is considered the norm. Typically, a career involves not only systematic education for the initial occupation but also "systematic occupational experience in which each occupation is considered as technical and social preparation for the succeeding ones".

#### *"Career Pattern" Defined*

The Dictionary of Social Sciences defines career and its related term career pattern as : "A career or career pattern is a series of adjustments made to the institutions, formal organizations, and informal social relationships involved in the occupation or sequence of occupations, which make up the work history of a person or the group of persons". This definition does not differentiate the term "Career" from "Career Pattern". The stress is here on the 'series of adjustments'. These series of adjustments involved in work situation form the work history of a person and constitute his/her career or career pattern. Further, the adjustments are made to various groups/organizations and informal social relationships involved in an occupation or sequence of occupations.

With increasing realization that the work history of most persons is not limited to a single occupation or profession, the concept of career-pattern has come into wide use.

Super et al (1957) define career pattern as "Most commonly, an individual's career pattern describes changes in the socio-economic level of the jobs held during his work life. The focus is not on success or satisfaction but on level and on movement as shown by jobs and job change".

A discussion of the characteristic career behaviour leading to some career patterns and occupational mobility necessarily implies existence of evidence based on longitudinal or cross-sectional data regarding work histories of a group of individuals who have gone through certain typical work periods. This is possible in developed and to some extent developing societies where the nature of economic enterprise and the market economy provide for variety of jobs and job possibilities at various levels of functioning. Attempts at tracking the career patterns of men have been made in the early part of this century in the U.S.A. by sociologists. The following is an account of some such important findings:

1. *Davidson and Anderson's Study*: Davidson and Anderson (1937) conducted the first ever research on career patterns entitled "Occupational Mobility in an American Community" in the city of San-Jose, California. The study had many concepts, derived from Sorokin's work on social mobility. Davidson and Anderson traced the job-sequences of men from various socio-economic groups. Data were gathered by questionnaire methods and were used to construct educational and occupational histories of the sample under investigation. These studies in the work histories of individuals enabled them to ascertain some of the characteristics of certain life stages of the individuals under study. This led them to establish the concept of the career-pattern as a sequence of types of jobs held.

This study seemed to have made a valuable contribution towards viewing career-patterns in terms of the work-histories of individuals and their relationships with parental education and occupation. Davidson and Anderson's study, however, established no definite relationship between job mobility and parental SES at various levels.

2. *Miller and Form's Study*: Miller and Form's (1947, 1949) Ohio-Study entitled "Occupational Career Pattern as a Sociological Instrument" is the most comprehensive career pattern study conducted after the early work of Davidson and Anderson. Occupational histories of 276 gainfully employed individuals were collected securing the complete histories of every single paid, part-time, full-time job the respondents could recall.

The data were gathered to: (i) devise a method of measuring occupational security for use in determining the security a worker experiences during his work life; (ii) discover the relationship between occupational mobility and occupational security for each socio-economic grouping of workers; (iii) examine how certain social factors may be related to the typical career patterns of different occupational levels.

Security was operationally defined and occupational histories were examined for the security or insecurity patterns depending upon initial, trial, or stable work period in which the job was classified. The *Initial* work period was defined by Miller & Form as a period of job impermanence, beginning when the worker seeks his first job during his span of school enrolment and continuing until he has terminated his education". The *trial* work period has been defined as "a period of job-transition, beginning when the worker seeks his first full-time job and continuing until he has secured a work-position in which he remains more or less permanently". The *stable* work period has been defined as "a period of job persistence beginning when the worker first finds a work position in which he remains more or less permanently (three years or more) and continuing until retirement, death, or until he enters another trial period".

In addition to these three "active work periods", Miller & Form also gave 'preparatory' and 'retirement' periods. They arrived at 'secure' and 'insecure' career patterns derived from information about various kinds of sequences consisting of initial, trial, and stable periods. The job sequence ending with 'stable' was characterized as secure whereas one ending with 'trial', was characterized as insecure. The secure and insecure career patterns were further classified by them into (i) stable, (ii) conventional, (iii) unstable, and (iv) multiple trial career patterns. In the stable career patterns the trial period is essentially skipped; in the conventional they found the typical initial-trial-stable sequence; in the unstable the sequence was trial-stable-trial; and in the multiple-trial it was trial-trial-trial.

To establish relationships between these secure and insecure patterns and occupational groups they examined three kinds of relationships:

- i. *The frequency of secure and insecure patterns associated with each occupational group:* When the frequency of the work period sequence was recorded for each occupational level classified in accordance with Edward's classification, it was found that those sequences which reflected predominantly stable work-lives were largely found in white collar levels and some skilled workers. Skilled workers and foremen were found to have more stable work-lives than clerks and kindred workers. The data indicated that industrial workers in semi-skilled and unskilled trades and workers in domestic and personal service had more unstable and insecure work-lives.
- ii. *The years spent in the secure patterns for each occupational group:* A ranking of occupational level from most secure to least secure, based on the occurrence of stable work-sequences, revealed the following order:
  1. Professional and semi-professional workers
  2. Proprietors, managers, and officials
  3. Skilled workers and foremen
  4. Clerks and kindred workers
  5. Semi-skilled workers and operatives
  6. Domestic and personal service workers
  7. Unskilled workers and labourers.
- iii. *The years spent in the initial, trial, and stable work periods regardless of the work-sequence for each occupational worker:* Mean number of years spent by a worker in initial, trial, and stable periods was found out and rankings were also given to them. Rankings in the stable period were given from longest to shortest number of years whereas in the trial and initial periods, they were from shortest to the longest number of years. Thus, they found an index of security which is defined as the ratio of mean years in the stable work period to the sum of the mean years spent in the initial and trial work periods. Thus

$$I_s = \frac{\bar{Y}_s}{\bar{Y}_i + \bar{Y}_t}$$

Where  $I_s$  - Index of Security.

$\bar{Y}_s$  - Mean number of years spent in stable work period.

$\bar{Y}_i$  - Mean number of years spent in initial work period.

$\bar{Y}_t$  - Mean number of years spent in trial work period.

Applying this index to the data, and analyzing the modal tendencies, it was found that there was greater stability in the white collar workers and skilled labour and more instability among the industrial workers of the semi-skilled, unskilled, and domestic and personal service jobs.

In addition Miller and Form gave the finding that once started on an occupational level, a worker tended to remain on that level.

*Social factors in typical career-patterns at different occupational levels:* On the basis of their findings, Miller and Form concluded that:

- a. There was a strong tendency among the children of white collar persons to inherit their father's occupation or fall below it.
- b. Above the manual level, the higher the education of the father the greater were the chances for the children to experience occupational and educational upward mobility.
- c. White collar and skilled workers seemed to provide their children backgrounds conducive to better adjustments and greater security in their future occupational histories. The reverse tended to be true for other manual workers.

The career-patterns typical of white collar and blue-collar workers portrayed in Fig. 7.1 and 7.2 indicate the relationships between father's education and father's occupation, father's occupation and son's education and son's education and son's occupation. These are similar to what Davidson and Anderson found earlier in their study on occupational mobility. But Miller and Form's data do not bring out any variations in these career-patterns in different occupational groups. Another limitation of Miller and Form's study from career guidance view-point is that they have not concentrated on any of the psychological characteristics of the worker. Career patterns are determined also by the influence of these entities in the life-history of an individual. They have also neglected the process of career choice and entry into the job which are intimately linked with career patterns.

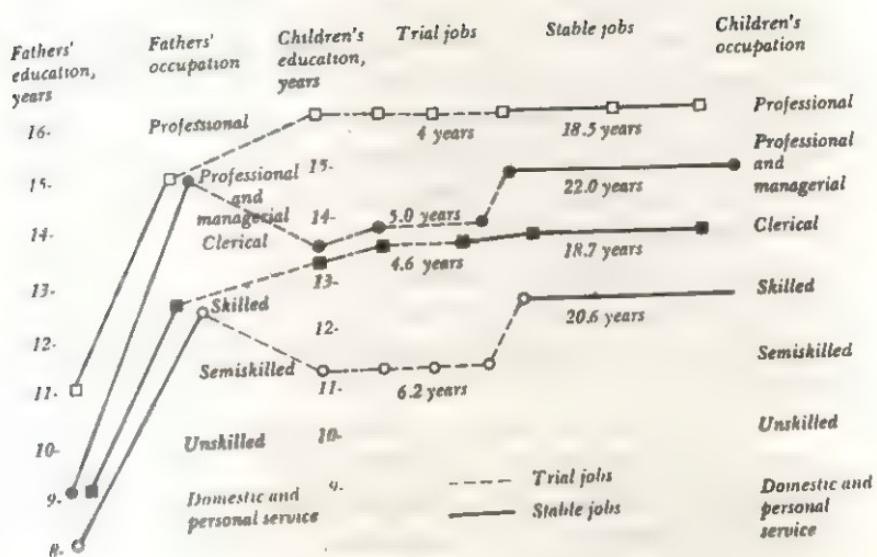


Figure 7.1  
High-security career patterns. (From Miller, D.C., & Form W.H., 1944, p. 327).

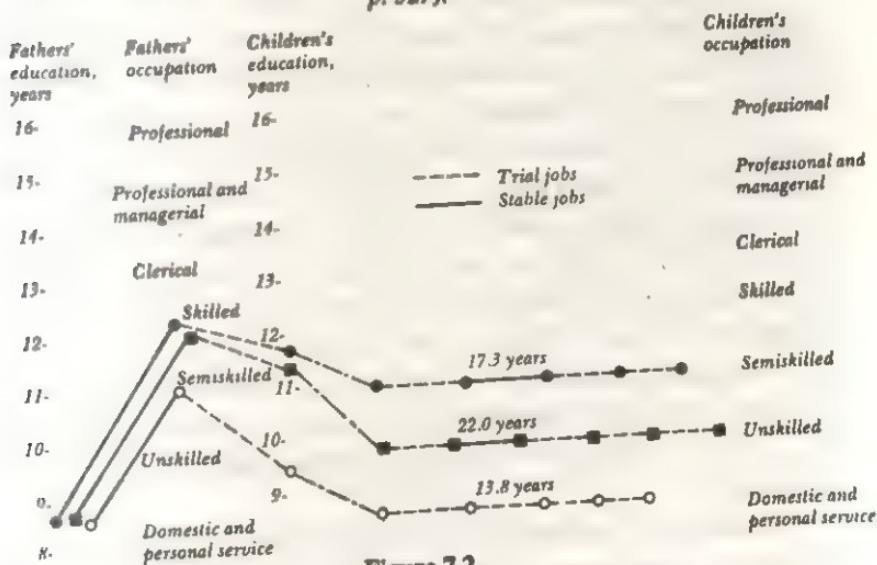


Figure 7.2  
Low-security career patterns. (From Miller, D.C., & Form W.H., 1949, p. 327).

Source: J.O. Crites, Vocational Psychology, McGraw Hill Book Co., 1969.

*Super et al's Career Pattern Study:* This study is one of a small number of investigations that are generally longitudinal and cover a sufficiently long period of time to make it possible to examine total developmental process. This 20-year longitudinal study captioned "The Career Pattern Study (CPS)" was initiated in early 1950s by a team of research workers, headed by Professor Donald E. Super as its Project Director and completed in 1973. The basic field work was conducted in 1951-52, follow up of the subjects who were initially in the ninth grade was done at regular intervals between the ages of 15 and 36 but most intensively at ages 15, 18, 25, and 36. The sample consisted of approximately 200 ninth grade boys from a typical small city of Middletown, New York.

The purpose of this study was to investigate into the vocational development of the group of boys to ascertain the contribution of psychological, educational, and social factors with the ultimate objective of formulating and to some extent documenting a theory of career patterns. The focus was not on *occupational choice* or on *occupational ability pattern*, but on *careers*.

Super and his colleagues have drawn upon self-concept theory to provide testable hypotheses regarding the exploratory and decision making process. The central proposition which CPS is designed to test is that vocational development is a process of acquiring, clarifying, and implementing a self-concept through preparation for and participation in the world of work. Many of the earlier formulations of the CPS attempted to integrate aspects of the theory with elements of vocational behaviour. The fourth monograph (Super et al, 1967) of this series treated the years of transition from school to college and work. The objective here was to determine the extent to which floundering and trial preceded establishment in an occupation, and the relationship between such career behaviour and antecedent measures designed to assess career maturity and traditional personality and achievement variables.

Unlike career pattern studies conducted by sociologists to trace the job-movement and occupational mobility, this study focussed more on developmental aspects of the preparatory and entry stages, arriving at some indices of career maturity and studying career development at later stages.

*Women's Career Patterns*

Miller and Form (1951, 1964) gave substantial amount of information about career patterns of men. No attempt, however, was made in their study to arrive at work patterns existing among women's careers. Super (1957) expresses the opinion that "Women's careers, career orientations, and career motivations differ from those of men and are likely to continue to differ in important respects." Though Super has taken into cognizance the need to understand women's careers in the light of their changing role in society, he lays stress on a woman's role of a child-bearer as the keystone of the home, and gives home-making a central place in her career. In view of this, Super (1957) has suggested the following outline for career patterns of women which appears to be as much relevant today because the situation regarding women's role in the home continues to be more or less the same:

1. The Stable Home-making Career Pattern: This includes all girls who marry shortly after leaving school or college, in line with their expectations, and having had no significant work experience.
2. The Conventional Career Pattern: The pattern consists of working, followed by home making as a permanent career. During the brief working period the girl may be occupied for a few months to a few years in work which does not usually require a high level of training beyond general education.
3. The Stable Working Career Pattern: This consists of embarking upon one's life work on completing school, college, or professional training generally perceived as a life career from the start. This category also includes some kind of initial perception of work as a stop gap arrangement but later changing into life career.
4. The Double Track Career Pattern: In this pattern the girl, on completing her education, goes to work, also marries, and continues with a double career of working and home-making. Work is valued both for its economic return as well as psychologically.
5. The Interrupted Career Pattern: The sequence in this pattern is one of working, home making, and working while or instead of home making. Time may be taken off when the children are

born, or when they are small. The woman may resume work due to socio-economic pressures; she may also add to her qualification before she restarts working and may start afresh at a different level of working, her employment being also affected by the prevailing job market situation.

6. **The Unstable Career Pattern:** Unlike this career pattern of men, women's unstable career pattern alternates between working and home making. The irregularity results from changing economic pressures or reasons of inconsistent health.
7. **The Multiple Trial Career Pattern:** This pattern is the same as that of men, and consists of a succession of unrelated jobs, with stability in none, resulting in no genuine life work.

Vetter (1978) conducted a study using Super's career pattern typology for women to categorize a sample of 4807 women. The distribution into various patterns was as follows: stable home making 22%; conventional, 2%; stable working, 3%; double track, 14%; interrupted, 16%; unstable, 18%; and multiple trial, none. In another longitudinal study (Lassalle and Spokane, 1987), personal and work histories of 710 women obtained from U.S. Census Bureau were analyzed according to the degree of participation as full-time (35 hrs or more a week), part-time (less than 35 hrs a week), and as 'out' i.e. no job during the interview week. While in all 17 patterns emerged, most of the patterns were infrequent. The patterns consisting of the jobs as indexed above into full-time (FT), Part-time (PT), or 'out' were as follows: Out FT FT FT (10%), Out Out Out Out (10%), FT FT FT FT (6%), PT FT FT FT (5%), Out Out Out FT (4%), etc.

*Harmon's Study of Women's Working Patterns:* The study named, "Women's working patterns related to their SVIB Housewife and 'OWN' occupational scores" was conducted by Lenore, W. Hermon (1967) in the University of Minnesota. This study attempted to relate the working patterns of a group of women to their scores on the Strong's Vocational Interest Blank (SVIB) Scales for the occupations in which they had worked.

The subjects of this study were women who entered the University of Minnesota in 1933-36. A subset of 98 women who had responded to the Strong's Vocational Interest Blank in 1936 (i.e., 25 years ago,

(when they entered the University) was taken and the marriage career-patterns of these 98 were analysed and classified into five categories viz;

- i. Women who never worked;
- ii. Women who worked until marriage or pregnancy;
- iii. Women who worked consistently;
- iv. Women who returned to work lately; and
- v. Single women, who worked consistently.

For each woman, the SVIB scores on the scale for the occupation she had pursued was designated as her 'OWN' score. Some women's occupations had no counter-parts in SVIB scales, so no 'OWN' scores were assigned. The mean 'OWN' scores and 'Housewife' scores were computed for each group of women.

The conclusions of this study revealed that the women who worked for over a period of 25 years scored a little higher on the SVIB scales for their 'OWN' occupations than those who worked for a lesser period. The 'Housewife' scores of the latter group were comparable to the group of women who had never worked at all. Hence no important differences were found between the groups on the 'Housewife' scale and only one group differed in the expected direction from the others on 'OWN' scale.

This study is valuable for the light that it sheds on the interests of women whose careers are characterised by different trends and phases during their occupational career. But as it was confined to students passing through or at least those who studied at a University, generalisations are not possible.

#### *Career Patterns: The Indian Scene*

India is a country of developing economy. The eighth plan envisages "elimination of poverty as a major concern of development planning". Expansion of employment opportunities, augmentation of productivity, and income levels of both the underemployed and employed poor would be the main instrument for achieving this objective during the eight plan. As per the plan, an employment oriented growth strategy will achieve this goal only in the medium and long term. In the meantime, short term employment will have to be provided to the unemployed and underemployed. Women who favour

nearly half of the population have been recognized as a target group in the promotion of employment. The employment strategies for women are based on promotion of opportunities for self-employment and creation of wage employment. Vocational training of women is to be a special thrust area. Special job-oriented courses are being organised for women. There is a plan to expand women's employment in the household sector by providing adequate support in the area of technology upgradation, training, credit, raw materials, and marketing. Keeping in view the strategy of employment in the Eight Plan (1992-97) it is now clear that more and more opportunities for employment in the area of technology and industry would be available to the school leavers. Also with the expansion of the media, school children are being exposed to the world of work much before they leave the school. Hence career planning and career decision starts at the school level i.e. +2 stage. More and more careers are opening in the fields of technology, electronics, and industry, as against the number and variety of jobs and employment opportunities available a decade ago. In the wake of such social and industrial developments, career patterns consisting of the job types, job entry levels, and job mobility and stability do not lend themselves to an accurate prediction. Hence research studies pertaining to careers and occupations are normally premature at the present stage of development of Indian society and economy. But with the achievements of the Eighth Plan targets there will be greater possibilities for more varieties in career paths and job mobility, and then it will be possible to design and conduct career-pattern studies and formulate career-pattern models.

Much is, however, being done in tracing the employment trends in various fields, and selection of jobs and vocations after school and college. Studies have been carried out by the Directorate General of Employment and Training (DGE&T), Ministry of Labour, and other such agencies, on employment patterns. These studies focus only on the career choices and their relationship with educational attainments and give a general picture of employment trends. They do not cover specific groups of vocations and/or psychological and sociological characteristics of the individuals in these groups.

In one Indian Study (DGE&T, 1962) entitled "Employment Survey of Selected Alumni of the University of Delhi", the concept of career-

pattern has been treated as the occupational distribution of individuals who graduated with a certain degree. The DGE&T have presented occupational patterns of this group of degree holders as a whole and divided it into eighteen categories e.g., B.A. (Pass), B.Sc. (Pass), M.A., M.Sc., Lib. Sc., Law, Education, Technology, and Foreign Languages. These occupational patterns were described in terms of occupational divisions of the National Classification of Occupations (DGE&T).

The main objectives of the study were (i) to investigate the relationship between education imparted in the university and the subsequent occupations of the alumni; (ii) to evaluate the curricula of different faculties and departments of the University in terms of their utility and job performance; and (iii) to study the occupational thinking, the factors determining the choice of subjects and the career-patterns of the alumni.

The survey was chiefly conducted by the Interview Method, and 1976 alumni, mostly residing in Delhi and a few (340 in number) staying outside Delhi were subjected to an interview. The group investigated included graduates of the university in the years 1950 and 1954.

The study revealed a number of interesting facts relating to the general characteristics of the alumni. With regard to the occupational patterns of employees, the following were the trends and patterns emerging out of an analysis of the distributions shown in Table 7.1 and 7.2.

**Table 7.1**  
**Percentage Distribution of the Workers According to the**  
**Occupational Category**

<i>Occupational Category</i>	<i>% Distribution of the Workers</i>	
	<i>1950</i>	<i>1954</i>
1. Professional and Technical Workers	50.3	59.7
2. Clerical Workers	25.0	40.3
3. Administrative, Executive, and Managerial Workers	9.8	5.3

- (i) A larger proportion of clerical workers of the 1950 group had become administrative, professional, and technical workers.
- (ii) Of the professional and technical workers, more than half of 1950 group and over a third of the 1954 group were teachers. Technical assistants formed 23.6 per cent of the 1950 group and 38.7 per cent of the 1954 group. Engineers and scientists at senior level accounted for under 5.0 per cent.
- (iii) Nearly 33.0 per cent of the 1950 honours graduates were administrative workers and about 25 per cent clerical. Figures for 1954 were 10 per cent and nearly 75 per cent respectively for the same categories of workers. B.Sc. (Hons) graduates mostly found work as technical assistants although about 33 per cent of this group in 1954 entered the clerical profession.

**Table 7.2**  
**The Occupational Distribution of Master's Degree Holders**

<i>Examination/Degree</i>	<i>Occupation</i>	<i>Percentage Distribution of the Alumni</i>	
		<i>1950</i>	<i>1954</i>
1. M.A. (Language)	Teachers	75.0	50.0
2. M.A. (Hist. Pol. Sc., Philosophy)	Teacher	33.0	33.0
3. M.A. (Economics, Commerce & Maths)	Clerks	33.0	33.0
4. M. Sc.	Technical Assistants	Actual figure not available, majority employed in this category	
5. M. Sc.	Teachers Scientists	3.7	1.4

Graduates in the field of Medicine, Social Work, and Library Science found work in their own lines of specialisation. Only 10 per cent of the law graduates, however, found work in their own field of specialisation.

Other interesting findings related to the mobility in employment were as under:

- (i) 40.0 per cent of the 1954 group and 50.0 per cent of the 1950 group held two or three employments.
- (ii) 33.0 per cent of the 1954 group and 14.0 per cent of the 1950 group changed their occupations — mostly beneficial changes. Clerical workers, teachers and administrative workers and technical assistants showed greatest occupational mobility.
- (iii) There was no clear pattern of occupational shifts among administrative workers and technical assistants.
- (iv) Trends in women's occupations showed that women engaged in clerical occupations tended to leave their jobs after marriage. Teachers, however, tended to continue even after marriage.
- (v) 63.0 per cent of the women in 1950 and 44.0 per cent in 1954 had taken the employment with a definite view to making a career. Married women appeared to be more certain in this sphere than unmarried women.

The above study involving graduates who had succeeded in obtaining employment, reveals a good deal of interesting information about trends and patterns in the occupations and careers. However, no attempt has been made to generalize these findings and fit them into any theoretical framework. Moreover, in the changing socio-economic scenario, major changes in the employment trends are expected to have taken place.

Another limitation of the above study was that it was confined entirely to graduates and post-graduates and that, too, in Delhi. Hence it may not be possible to make generalizations based on this very select group.

*P. Kaur's Study on Career Patterns (1976):* The study entitled 'A Career Pattern Study of Higher Secondary Girls of Delhi with Reference to a Career Planning Programme for Them', was limited to an investigation of the relationship between career patterns and the factors included in two categories: (i) Individual's characteristics and

experiences, and (ii) Individual's personal situation. The sample consisted of 63 nurses, 50 teachers, and 50 clerks employed in Delhi with the Government of India, Delhi Administration Municipal Corporation, and some autonomous and private organizations.

The following three hypotheses were tested:

1. Differential trends or movements in the career patterns in each of the three vocations of Nursing, Teaching, and Clerical are identifiable in respect of the girls working in Delhi.
2. Intelligence, scholastic achievement, parental background, and other personality and environmental characteristics are related to the career patterns.
3. Trends to regress towards or improve upon occupational levels of parents or guardians are identifiable.

Analysis of the work histories of nurses, teachers, and clerks in terms of initial and permanent job (following Miller and Form's Index of Security) established that the two groups of nurses and teachers differed significantly from clerks in their career patterns. Clerks were found to be significantly higher on having held a number of small duration jobs, during the 'initial' work period ranging upto 3 1/2 years. The findings established the existence of trends (patterns) in the form of permanent, temporary, or initial work periods of girls engaged in these vocations under study.

Attempts at establishing relationships between career patterns and personal-social factors indicated a significant relationship between Index of Permanency (Index of Security as per Miller and Form) and type of school attended. On personality and environmental factors no relationship emerged. Intelligence was found to be inversely related to the Index of Permanency.

Analysis of relationship between parental and subjects' occupational level indicated that whereas the group of clerks remained in the vicinity of parental occupational level, the groups of nurses and teachers showed an upward trend.

To sum up, career patterns were introduced as a sociological construct to depict work histories of individuals over an extended period of time and were found to be related to their socio-economic status. Typical career patterns have been described in terms of sociological work periods delineated as initial, trial, and stable as given

by Miller and Form, depending upon the life stage one was passing through. Career patterns identified for men and women have been found to be different due to differences in social roles being played by the two sexes. A few attempts at tracing career histories and career patterns have been made in India. Not much of information about the present situation is available. However, in Chapter 8 some current information on Indian male and female subjects regarding their career behaviour before and after entry, relationship between SES and some factors of job behaviour, stability, mobility, etc., have been presented.

## Chapter 8

# CAREER DEVELOPMENT PROCESS IN INDIA SOME EVIDENCE

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*Swadesh Mohan*

In discussing the career development process, adolescence has been identified as a stage when the adolescents start visualizing themselves as future workers and manifest some tendencies and behaviours related to their future work. At this stage their thinking about careers is, however, remote rather than close to being realistic. Adolescents, like most people, make career choices in a haphazard and random way (Elder, 1971). From Erikson's (1964, 1968) perspective, developing a view of the self in a vocational setting is critical to forming a mature adult identity. Differences in the process of career identity formation in males and females have also been stressed due to prevalent gender - role - stereotypes. Grotevant and Thorbecke (1982) came out with a research finding that in males occupational identity was revealed in acceptance of challenging tasks, whereas in females it was manifested in the form of willingness to work hard and avoid competition.

In Chapter 4, the process of career development has been variously described as given by career development theorists with a wide array of orientations. Career decisions have been found to be associated with a multiplicity of personal and extrinsic factors. The scientific approach to understanding career behaviour assumes that individuals follow an

orderly and predictable process in arriving at and implementing vocational decision and hence generalizations have been formulated to explain empirically established relationships, though the process is compounded by the interplay of various factors in various combinations. Super et al (1957) advocated an integrated psycho-socio-cultural approach in the study of an important social problem. According to them predictions are best determined from empirically established principles of relationships between factors and events.

Career behaviour is conveniently classified into pre-entry and post-entry behaviours. Development of career orientation, preferences, interests, aspirations; awareness of personal assets and familial influences; formulation of career plans, and attempts at entering the world of work constitute the pre-entry behaviours, while adjustment process subsequent to job entry constitutes the post-entry behaviour. Some of the outcomes of the adjustment process are the typical career patterns that are witnessed in different societies.

Career adjustment basically refers to the adult career behaviour after job entry. As against early beliefs about job stability setting in at an early age (Miller & Form, 1951, 1964; Super, 1957) interest in studying job stability and movement in a life cycle extending over the whole life span has been evinced (Levinson et al, 1978; Sheehy, 1974) in the Western world. In essence, the life cycle approach "focusses on the dynamic evolution of people, their families, and their careers over a life time" (Sonnenfeld and Kotter, 1982). Interactions among occupational, personal, and family factors have been emphasized. Job stability has been witnessed even more frequently in India due to density of population and high unemployment rates. Emergence of a variety of occupations, Government's policy of liberalization and globalization, rising figures of women's participation in labour force, craving for a variety in life style, etc., have, however, brought about significant changes in career patterns.

A synthesis of some contemporary theories of adult career stages suggests that adult career behaviour is consistent with what Super and Hall (1978) propose as four major phases viz; (i) preparation for an occupation and obtaining a job (preparation), (ii) demonstration of competence in and adjustment to work environment (establishment), (iii) maintenance and/or advancement of one's position in an

established occupation (maintenance); and (iv) decline in involvement with the work place (retirement).

Due to the frequent entry and re-entry of an individual in jobs, there is less emphasis on association of these stages with the age span which could have been earmarked for each stage. Hence though theoretically these developmental stages start during late adolescence (20 and under) and pass through early adulthood (20-40), middle adulthood (40-60), and late adulthood (60 and under), the sequential, age-related aspects of career stages have been found to be clashing with the actual career adjustment process in the case of a large number of persons. The identity with career is established, to begin with, during adolescence. Developmental tasks characteristic of the establishment stage such as fusion of identity i.e. beginning an occupation and securing a work position, attempts at stabilizing in it by consolidating one's gains, advancing, and preparing for long range commitments in terms of moving to a new organization, etc. happens in the establishment stage. According to Levinson et al (1978), a re-examination of goals and dreams takes place at this stage which may result in job changes by way of career advancement. However, a variety of career behaviours consisting of "Floundering" or more "mature" manifestations such as midlife career change or coming out of retirement and re-entering the work force is the keynote of this stage. At the next i.e. the maintenance stage individuals, supposedly satisfied with the job, are not prone to making radical changes, though changes in work place in the same occupation, or during some crisis are not ruled out. According to work adjustment theory (Lofquist and Dawis, 1969), the individuals satisfied with their work move toward career stability characterized by continuity in employment and permanence in the same occupation. The maintenance stage is followed by retirement which may be a smooth process of planning before actual retirement manifested in decreased work activity and transferring of responsibilities. Here, other stages could be re-engaged if part-time employment is necessary to supplement income, thus going through the whole process of preparation, establishment, maintenance etc., a second time.

Influences on pre-entry career behaviour such as social structures of work, family, and education have been discussed earlier in this book.

The present empirical study conducted in the Indian setting is a modest attempt at analyzing some influences consisting of personal and familial factors, as they relate to work entry and work adjustment.

## PROCEDURE

### *Sample*

An accidental random sample of adults, both males and females, belonging to five occupational groups and six occupational levels (Roe, 1966, Table 4.1, Chapter 4) was taken, the incidence of males and females being 220 and 95 respectively. The respondents could be classified into one of the five fields\* and one of the six levels within a field. The field classification is based on area of activity performed, and the level hierarchy is based upon the level of responsibility, income, education that went with the job. The subjects were classified into six SES levels, again based on Roe's level classification applied to father's occupation. These six SES levels were clubbed into three major categories of High, Middle, and Low by combining adjacent categories in the hierarchy. The distribution of males and females into five occupational groups and six occupational levels is set out in Table 8.1. Table 8.2 presents the distribution of sample into occupational groups and SES (Father's) categories. In Table 8.3 is presented average age of respondents. As can be seen, there are no significant level-wise differences in age. Group-wise and sex-wise differences, too, are negligible.

### *Tools Used*

Questionnaires to yield information on personal and family data, job values (opinions), pre-entry career behaviour, job history, and father's attitudes, were administered and probing, wherever required, was done. The items of information were planned using developmental concepts of life stages (Super, 1957) and Career Patterns (Miller & Form, 1951, 1964).

\* Roe has given eight occupational groups. Only five of these viz., Service, Business Contact, Organization, Technology, General Culture have been covered in this study.

## ANALYSIS OF DATA

The findings were based on content analysis. Data were tabulated and analyzed using simple statistics like percentages and rankings. Gender and Socio-Economic Status (SES) were treated as independent variables. Analysis on dependent variables with regard to intragroup and intergroup (Occupation wise) differences, within SES levels and between SES levels, and between males and females was conducted. Sex differences were studied using total males and total females groups due to small sub-samples of females. Research questions pertained to two broad categories viz., (i) pre-entry career behaviour, and (ii) post-entry adjustment.

### SECTION-I

#### *Analysis on Pre-Entry Career Behaviour/Development Variables*

The data on pre-entry career behaviour was analyzed with regard to the influence of background variables like SES, sex, family size, and birth order. The other pre-entry variables like subjects' job attitudes, father's attitudes towards their sons'/daughters' job, subjects' educational and career plans etc. were taken up. Content analysis to identify relationships between various independent and dependent variables was performed.

#### *Familial Factors in Career Development*

*Family Size and Career Choices:* The distribution of sample by family size and SES is set-out in Table 8.4.

It can be seen that on the whole the number of subjects coming from large families (more than three siblings) is fourfold as compared to small families. Chi-square applied to test the significance of difference in the family size in three SES categories yielded a value of 10.79 with 2 degrees of freedom, significant at .01 level. The distribution of cases of the total sample in SES groups shows that the cases falling on the two extremes of the distribution is approximately the same but the incidence of large families is much higher in low SES than in High SES group (73:45). The reverse is true of small families where the incidence is 25:12 respectively for High and Low SES groups.

Family size, therefore, seems to be inversely related to SES.

**Table 8.1**  
**Sample Description by Occupational Group (Anne Roe's Field) and Occupational Level (Anne Roe's Level)**

<i>Occupational Group</i>	<i>Service</i>		<i>Business Contact (BC)</i>		<i>Organization</i>		<i>Technology</i>		<i>General Culture (GC)</i>		<i>Total</i>
	M	F	M	F	M	F	M	F	M	F	
Occupational level											
Professional & Managerial Level I	3	7	18	1	6	1	6	0	5	2	38 11
Professional & Managerial Level II	6	2	7	1	9	2	4	2	9	9	35 16
Semi-professional, Clerical & Sales Level III	7	14	9	3	12	5	9	1	8	9	45 32
Skilled Level IV	2	10	6	3	11	4	8	0	9	4	36 21
Semi Skilled Level V	9	4	0	0	7	5	15	0	3	2	34 11
Unskilled Level VI	6	2	0	0	15	0	5	1	6	1	32 4
<b>Total</b>	<b>33</b>	<b>39</b>	<b>40</b>	<b>8</b>	<b>60</b>	<b>17</b>	<b>47</b>	<b>4</b>	<b>40</b>	<b>27</b>	<b>220 95</b>

**Table 8.2**  
**Distribution of Sample by SES (Father's Occupational Level)**

<i>Respondents Occupation</i>	<i>Service</i>		<i>Business Contact (BC)</i>		<i>Organization</i>		<i>Technology</i>		<i>General Culture (GC)</i>		<i>Total</i>	
<i>Father's SES level</i>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>
I High (Roe I & II)	6	12	7	2	10	1	6	2	7	19	36	36
II Middle (Roe III & IV)	13	18	31	5	22	9	22	2	26	8	115	42
III Low (Roe V & VI)	14	9	2	1	28	7	19	0	6	0	69	17
<b>Total</b>	<b>33</b>	<b>39</b>	<b>40</b>	<b>8</b>	<b>60</b>	<b>17</b>	<b>47</b>	<b>4</b>	<b>40</b>	<b>27</b>	<b>220</b>	<b>95</b>

Table 8.3  
Average Age of Respondents (in yrs, round figures)

Occupational Group	Service		Business Contact (BC)		Organization		Technology		General Culture (GC)		Total
	M	F	M	F	M	F	M	F	M	F	
SES Level											
High	48	36	39	33	41	36	39	33	37	38	41
Middle	39	29	38	36	37	38	37	42	41	38	37
Low	36	37	32	35	38	31	38	—	54	—	40
Total	41	34	36	35	39	35	38	37	44	38	40

**Table 8.4**  
**Sample by Family Size and SES**  
**(Males + Females)**

<i>Family Size/SES</i>	<i>High</i>	<i>Middle</i>	<i>Low</i>	<i>Total</i>
Large	45	110	73	228
Small	25	24	12	61
Total	70	134	85	289*

\* Information about the remaining cases was not available.

*Inter-relationships Between Occupational Fields and Family Size:* Sample of females being relatively small, break-up of sample by sex was not done here. Distribution of the total number of cases by family size is presented in Table 8.5.

#### *Family Size and Choice of Occupational Field by SES*

##### *High SES*

As can be seen in Table 8.5, the inter-occupational groups profile at this level of SES in large families is characterized by the highest position obtained by B.C. (49%) closely followed by G.C. (35%) and then Service (20%), Organization (8%), and Technology (6%). A different hierarchy is obtained in small family data with G.C. (42%) and Technology (40%) in the top two ranks followed by service (33%), B.C. (27%), and Organization (20%). The relative positions of occupational groups in large and small families show a great difference in the rank obtained by B.C. and Technology.

On comparison of large and small families within occupational groups at this SES level, it is found that Technology, Service, and Organization are significantly\* more popular with small families (Large: Small Family figures being 6:40; 20:33; and 8:20 respectively). B.C. group (49%) is significantly more popular with large families as compared to small families (27%). G.C. group in both types of families is much the same.

\* A difference of 10% or more is taken in this study to be significant.

Table 8.5  
Family Size and Career Choices  
(Males + Females)

Respondents' Occupational Group and SES		Service			Business Contact (BC)			Organization			Technology			General Culture (GC)		
		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Family Size																
Large	%	20	40	49	43	8	44	48	6	52	42	35	50	15		
	N	(11)	(22)	(20)	(24)	(21)	(3)	(3)	(17)	(19)	(2)	(17)	(4)	(14)	(20)	(6)
Small	%	33	47	20	27	73	0	20	40	40	40	20	20	42	43	(15)
	N	(5)	(7)	(3)	(4)	(11)	(0)	(4)	(8)	(8)	(4)	(2)	(4)	(11)	(11)	(3)

### *Middle SES*

The inter-occupational-groups profile for large families at this level shows that the occurrence rate ranges from 40% to 52% (Service and Technology respectively). G.C. group (50%) is very close to Technology. Hence, the top two ranks go to Technology and G.C. and the lowest rank to Service. The profile for small families at this level is more peaked and well defined as compared to large families. The top rank is obtained by B.C. (73%) followed by G.C. (53%), Service (47%), Organization (40%), and Technology (20%). Technology, which has the highest rank in large families has the lowest rank in small families at this SES level.

Within-occupational-group family size comparisons indicate the greatest diversity of incidence of B.C. (Large family: Small family being 43%:73%) and Technology (Large Family: Small Family being 52%:20%). B.C. is significantly more popular with small families whereas Technology is significantly more popular with large families. On the remaining occupational groups family size differences are insignificant.

### *Low SES*

The inter-occupational-groups profile for large families indicates the highest incidence for Organization (48%) followed by Technology (42%), Service (40%), G.C. (15%) and B.C. (8%). The range of popularity figures between the highest and the lowest is significantly large to differentiate the two extreme groups. In small family data the highest rank is obtained by Organization and Technology (40%) each, followed by Service (20%), G.C. (5%), and B.C. (0%). Here again the range of difference between the highest incidence and the lowest incidence is tremendously large. A striking similarity in the rank orders of various occupational groups in large and small families has emerged at this SES level as against High and Middle SES groups.

The within-occupational-group comparisons of families show organization to be almost equally popular (Large Family: Small Family being 48%:40%) in both types of families. Significant differences have appeared in the case of Service (Large Family : Small Family being 40%:20%), Technology (Large Family : Small Family being 42%:20%) and G.C. (Large Family : Small Family being 15%:5%). All three

groups are significantly more popular with large families. On the remaining two groups family size differences are insignificant.

### ***Family Size and SES Influences within Occupational Fields***

#### ***Service***

In High SES, Service is significantly more popular in small families than in large families (33% : 20%). In low SES it is significantly more popular in small families than in large families (20% : 40%). Middle SES differences are not significant.

#### ***Business Contact (B.C.)***

In High SES, B.C. is significantly more popular in large families than in small families (49%:27%). In Middle SES, it is significantly more popular in small families than in large families (73%:43%). In low SES large family incidence is nearly significantly more than in small families (8%:0%).

#### ***Organization***

In High SES, Organization is significantly more popular in small families than in large families (20%:8%). In Middle and Low SES groups, differences are insignificant.

#### ***Technology***

In High SES, Technology is significantly more popular in small families than in large families (40%:6%) whereas in Middle and Low SES it is significantly more popular in small families than in large families (52%:20; and 42%:20% respectively).

#### ***General Culture***

In High and Middle SES, there are no significant differences. In low SES, G.C. is significantly more popular in large families than in small families (15%:5%).

#### ***Over View***

Small and large family differences are clearly evident in a number of sub-groups viz; High and Low SES Service, High and Middle SES

B.C., High SES Organization, all SES groups in Technology and Low SES in G.C., Service is more popular in small High SES and large low SES families; B.C. is more popular in large High SES and small Middle SES families; Organization is more popular in small High SES families; Technology is more popular in small High SES and large low SES families and G.C. is more popular in large low SES families.

***Birth Order Influences on Career Choice:*** The data for males and females were treated together. Table 8.6 contains figures on birth order.

#### ***Relationship Between Birth Order and Occupational Group***

##### ***High SES***

On the popularity of occupational groups among the First Borns, it was found that the occupational hierarchy consisted of G.C. group (46%) at the top followed by B.C. (32%), Service (30%), Technology (18%), and Organization (6%). The Later Borns showed a different hierarchy with (G.C. (30%) at the top followed by Service (22%), technology (14%), organization (14%), and B.C. (12%). G.C. is ranking first in both the groups. The least chosen occupation is Organization for First Borns while it is B.C. for Later Borns.

##### ***Middle SES***

Among the First Borns, B.C. group (62%) is ranking first, with all the other occupational groups having a similar status (between 30% and 36%). Among the Later Borns, too, the B.C. group (80%) is placed distinctly higher than other groups which rank in the order of G.C. (58%), Organization (48%), Technology (47%), and Service (45%). The occupational rankings of the First Borns and the Later Borns are nearly alike, though the profiles in both the groups are not too well differentiated after the first ranking occupation.

##### ***Low SES***

Among the First Borns, the Organization Group (64%) is very distinctly the highest followed by Technology (45%), Service (35%), G.C. (8%), and B.C. (6%). Among the Later Borns Technology (39%), Organization (38%), and Service (33%) constitute the first three almost

**Table 8.6**  
**Birth Order and Career Choice**

Respondents' Occupational Group & SES Level		Service			Business Contact (BC)			Organization			Technology			General Culture (GC)		
		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Birth Order																
First Borns	%	30	35	35	32	62	6	6	30	64	18	36	45	46	46	8
	N	(5)	(6)	(6)	(6)	(12)	(1)	(1)	(5)	(11)	(2)	(4)	(5)	(15)	(15)	(3)
Later Borns	%	22	45	33	12	80	8	14	48	38	14	47	30	39	58	12
	N	(11)	(23)	(17)	(3)	(20)	(2)	(6)	(20)	(16)	(4)	(15)	(13)	(10)	(19)	(4)

equally popular occupations, and G.C. (12%) and B.C. (8%) constitute the last two occupations. With a minor variation in the highly popular occupations the occupational standing among the First and Later Borns is the same. A scrutiny of the extent of similarity and/or differences in the relative positions of First and Later Borns on occupational preferences at the three SES levels reveals that there are more of similarities than differences among First and Later Borns at given SES levels, but the profiles at the three SES levels consist of different occupational hierarchies. High SES First and Later Borns are highest on G.C.; Middle SES First and Later Borns are highest and second highest respectively on Organization and Technology.

### *Within-Occupational-Group SES Differences By Birth Order*

#### *First Borns*

The High, Middle, and Low SES groups are ranking highest on G.C., B.C., and Organization respectively. High and Middle SES First Borns are ranking lowest on Organization, while low SES First Borns are ranking lowest on G.C. For the First Borns, inter-SES profiles for various occupational groups show that Service is almost equally popular with the three SES groups. B.C. is most popular with Middle SES, followed by High and Low SES respectively. Organization and Technology are most popular with low SES, followed by Middle and High SES respectively. G.C. is equally popular with High and Middle SES, followed by Low SES.

#### *Later Borns*

Looking at the magnitude of highest and lowest occupational preferences of High, Middle, and low SES groups it is evident that Later Borns of High and Low SES groups have none of the highest ranks, while Middle SES group has all the highest ranks in various occupations and none of the lowest ranks. High SES group has the lowest preference (popularity of occupation) for B.C. and G.C. For the Later Borns inter-SES profiles for various occupational groups show that Service, Organization, and Technology are most popular with Middle SES, followed by Low and High SES respectively. B.C. and G.C. are most popular with Middle SES. High and Low SES groups are distinctly lower than this, with the gap being extremely large in the case of B.C.

*Fathers' Job Attitudes and Career Choice/Entry:* Father's attitudes and preferences regarding the job to be entered by their sons/daughters were studied on factors like government/traditional/secure job, earnings, types of enterprise/set up, risk taking, job changes, and geographical mobility. While in general the number responding to the question of government/traditional job was significantly large across groups and SES levels, a general indifference on their response to other dimensions was noted. Analysis of data for group differences, SES, and Sex differences revealed that for both males and females across occupational groups and at all three SES levels government/traditional job is preferred by the majority of fathers, incidence ranging between 50 per cent and 100 per cent for both males and females. Middle SES males and females had the highest preference of 86 per cent, low SES males and females had the highest preference to the tune of 78 per cent.

On other attitudinal variables, the percentage of fathers giving weightage to earnings/perks ranged from 70 per cent to 20 per cent for various male groups. The highest response came for B.C. and G.C. groups. For females, the incidence was significantly lower in all groups except G.C. where fathers of females constituted a significantly larger group (male : female being 18 : 33 per cent).

In both males and females, response on job security aroused less interest than earnings, the percentages for various groups ranging from 7 to 25 for males with only Organization being as low as 7 per cent. For females, incidence went upto 20 per cent in the case of Service, Organization, and G.C. On B.C. and Technology the incidence is nil. On the remaining factors like job changes, geographical mobility and risk taking behaviour, the response rate for both males and females was too negligible to be interpreted.

#### *SES Differences (Males)*

On the factor of 'earnings' the hierarchy of fathers' attitudes consisted of High, Middle, and Low, with the High SES having a significant edge over the other two categories, but Middle SES did not differ significantly from Low SES. On 'job security' there were no SES differences, while on the 'type of enterprise' of their choice the Middle SES parents are significantly higher than the other two.

### *Extent of Father's Support*

The data on this variable were generated on the question, "to what extent has your father been instrumental, if at all, in your entry into and/or change from the first to subsequent jobs". The response was elicited on a three point scale consisting of 'yes', 'neutral', 'no'. The data were analyzed separately for males and females by occupational field and SES level.

*Father's Support—Males:* The male data are presented in Table 8.7

### *Group Difference by SES*

#### *High SES*

Occupational group differences on this variable of father's support emerged with 100% of Service group reporting support, Technology and Organization registering 33% and 30% support respectively, and B.C. and G.C. groups registering only 14% and 12% support respectively. Significant differences, too, have been revealed in various groups. Amongst the last four groups whereas there was a great deal of possibility of non-supportive attitudes due to less of support, they were indicated much less than the neutral attitudes, the latter being for B.C. 86%, G.C. 64%, and Organization 50%. All the differences are significant. Only on Technology the neutral and non-supportive attitudes were both alike (33% each). Intra-group differences are very significant in the case of all occupational groups except Technology which registered equal amount of supportive, neutral, and non-supportive attitudes. On the whole, at High SES level, neutral attitudes have been predominant, followed by supportive and non-supportive attitudes. All differences are significant.

#### *Middle SES*

The maximum support is recorded by Service (50%) followed by all the other groups falling in the vicinity of 30% to 36%, showing significantly lesser supportive and non-supportive attitudes. Non-supportive attitudes are about the same and not too high in the case of Technology, Service, and Organization (28%, 23% and 23% respectively) and B.C. (14%) is significantly less, with G.C. not

**Table 8.7**  
**Father's Support—Males**

Occupational Group	Service			Business Contact (BC)			Organization			Technology			General Culture (GC)			Total		
	SES	S	N	NS	S	N	NS	S	N	NS	S	N	NS	S	N	NS	S	N
High % N	100 (6)	0 (0)	0 (0)	14 (1)	86 (6)	0 (0)	30 (3)	50 (5)	20 (2)	33 (2)	33 (2)	33 (2)	12 (1)	64 (5)	24 (2)	33 (13)	50 (18)	17 (6)
Middle % N	50 (6)	27 (4)	23 (3)	36 (11)	50 (15)	14 (5)	32 (7)	45 (10)	23 (5)	36 (5)	36 (8)	28 (6)	30 (6)	70 (20)	0 (0)	33 (38)	50 (57)	17 (19)
Low % N	29 (4)	71 (10)	0 (0)	50 (1)	0 (0)	50 (1)	33 (9)	56 (16)	11 (3)	10 (2)	58 (11)	32 (6)	0 (0)	100 (6)	0 (0)	23 (16)	62 (43)	15 (10)
Total % N	50 (16)	41 (14)	9 (3)	33 (13)	50 (21)	17 (6)	31 (19)	52 (31)	17 (10)	25 (12)	45 (21)	30 (4)	17 (7)	78 (31)	5 (2)	30 (67)	54 (118)	16 (35)

S = Support; N=Neutral; NS = Non-Support

recording any of these. G.C. Group has, on the other hand, reported the maximum of neutral attitudes (70%) followed by B.C. and Organization (50% and 45% respectively). Technology (36%) and Service (27%) which fall last of all on neutral attitudes are again significantly lower than the rest.

Intra-group differences are very significant in the case of B.C., Organization and G.C. In the Service group, neutral and non-supportive attitudes are alike and in Technology, supportive and neutral attitudes are alike. On the whole at this SES level, neutral attitudes have been predominant followed by supportive and then non-supportive attitudes.

#### *Low SES*

The maximum support is recorded by Organization and Service (33% and 29%). Technology group (10%) is very low on support while G.C. group is totally lacking on this variable at this SES level. Non-supportive attitudes are present in Technology (32%), and Organization (11%). Service and G.C. groups have reported none of this attitude. Neutral attitudes have dominated the scene for G.C. (100%), Service (71%) followed by Technology and Organization (58% and 56%). B.C. group consisting here of only two cases is not included in the analysis. Intra group differences are very significant in the case of all occupational groups except B.C. The highest position is obtained by neutral attitudes in the case of all these groups. On the whole, neutral attitudes are predominant, followed by supportive and then non-supportive attitudes.

#### *SES Differences*

##### *Service*

High SES has registered the highest and 100 per cent support followed by Middle (50%) and low (29%) SES indicating highly significant differences at three levels. Low SES (71%) is highest on neutral attitudes, followed by Middle SES (27%) also indicating highly significant differences. Non-supportive attitudes are present only at Middle SES (23%) level.

### B.C.

Middle SES B.C. group is significantly higher on supportive and non-supportive attitudes (36% and 14% respectively) than High SES B.C. group (14% and 0% respectively). High SES group, on the contrary, is significantly higher on neutral attitudes. Neutral attitudes have also exceeded the other kinds of attitudes in magnitude. Low SES data are too inadequate to be analyzed.

### Organization

There are no significant differences on almost all comparisons except for low SES non-supportive attitudes which are significantly lower than (i) Low SES supportive and neutral attitudes, and (ii) High and Middle SES non-supportive attitudes.

### Technology

While the High and Middle SES groups have not registered significant deviations on any of the comparisons, the low SES is significantly lower on (i) supportive attitudes (10%) as compared to High (33%) and Middle (36%) SES, and (ii) as compared to non-supportive attitudes (32%) and neutral attitudes (58%).

### G.C.

For this group, at all the three SES levels the supportive attitudes are significantly less than neutral attitudes, the latter being 64%, 70% and 100% respectively for High, Middle, and Low levels. Non-supportive attitudes are only evident at High SES level (24%).

On the whole, the three SES levels and the five occupational groups (except for Service) are alike in being the highest on neutral attitudes than either supportive or non-supportive attitudes, neutrality being the highest at low SES levels. The supportive attitudes are second in rank and the non-supportive attitudes have the last position.

*Father's Support-Females:* The female data are presented in Table 8.8.

**Table 8.8**  
**Father's Support-Females**

<i>Occupational Group</i>		<i>Service</i>			<i>Business Contact (BC)</i>			<i>Organization</i>			<i>Technology</i>			<i>General Culture (GC)</i>			<i>Total</i>		
SES Level	N	S	N	NS	S	N	NS	S	N	NS	S	N	NS	S	N	NS	S	N	NS
High N %	6	5	1	1	1	1	1	1	1	1	1	1	1	8	8	3	17	14	6
Middle N %	13	1	4	0	5	0	0	2	3	0	2	0	1	7	0	14	17	7	
Low N %	3	3	3	0	1	0	0	8	0	—	—	—	—	—	—	—	43	40	17
Total N %	56	22	9	8	1	6	1	11	3	1	2	1	9	15	3	34	43	16	
		56	23	21	3	74	3	26	58	16	25	35	20	30	6	0	39	44	17

The female sample being smaller in size, groupwise analysis did not seem to be feasible. Hence the analysis of all occupational groups combined within SES levels and between SES levels has been reported.

### *Father's Support by SES*

The profile of supportive, non-supportive, and neutral attitudes for *High SES* group show a downward hierarchy the incidence being 47%, 38% and 15% respectively. Non-supportive attitudes are significantly less than the other two kinds of attitudes. The profile for the *Middle SES* group is the same as reported for *High SES*.

There is a predominance of neutral attitudes (66%) in *Low SES* group with both supportive and non-supportive attitudes to be equally significantly less (17% each).

### *SES Differences*

The hierarchy of supportive attitudes is in the descending order of *High*, *Middle*, and *Low SES* groups. On non-supportive attitudes there are no SES differences. On the neutrality of attitudes, the hierarchy consists of low SES followed by significantly lesser incidence at both *High* and *Middle SES* levels.

For the total sample, however, the hierarchy consists of neutral (44%), supportive (39%), and non-supportive (17%) attitudes. The major contribution to neutral attitudes comes from low SES group.

### *Sex Differences*

Male vs female differences are reported here by SES and for the totals of occupational groups. *High SES* males and females have shown differences on the dimension of father's support. Females (47%) are significantly higher than males (33%) on support, while males (50%) are significantly higher than females (38%) on neutrality of attitudes. There are no sex differences on non-supportive attitudes of fathers.

*Middle SES* males and females differ significantly on father's support (33 per cent and 43 per cent respectively) and on neutrality of attitudes (50 per cent and 40 per cent respectively). In the former, the females have more of support, in the latter, neutral attitudes are more predominant for males' fathers.

*Low SES differences are insignificant on all categories of support.*

*Within group sex differences are significant in the case of higher neutral attitudes for Service males than females (41 per cent and 23 per cent), Non-supportive attitudes are higher for Service females (21 per cent) than males (9 per cent). On support, there are no differences. B.C. males and females differ significantly on all three categories of support. Males (33 per cent) are higher than females (3 per cent) on support, females (74 per cent) are higher than males (50 per cent) on neutral attitudes, and males (17 per cent) are higher than females (3 per cent) on non-supportive attitudes.*

*In Organization group, males and females do not differ significantly on any of the categories of support. Technology males (45 per cent) are higher than females (35 per cent) on neutral attitudes. Similarly G.C. males (78 per cent) are markedly higher than females (6 per cent) on neutral attitudes. However, G.C. females (30 per cent) are higher than G.C. males (17 per cent) on support. On non-supportive attitudes, G.C. males and females do not differ.*

*The total sample of males and females differ significantly on neutral attitudes (54 per cent and 44 per cent respectively). On support, females (39 per cent) are nearly significantly higher than males (30 per cent). On non-supportive attitudes there are no differences.*

### *Personal Factors in Pre-Entry Career Behaviour*

***Extent of Professional/Technical/Vocational Education Possessed by Respondents:*** Effective career planning involves preparing and training oneself in skills and competencies required for the job. Such preparation is done through pre-service and inservice courses.

Information on whether the respondents possessed relevant professional/technical qualification at the time of job entry was also collected and analyzed. Findings are presented in Table 8.9 and are discussed below.

### *Group Differences (Males and Females Combined) by SES*

At High SES level professional/technical qualification was possessed in the order of Technology (100 per cent), Service (94 per

cent), G.C. (82 per cent), B.C. (67 per cent) and Organization (56 per cent). At Middle SES level the order consisted of G.C. (81 per cent), Service (68 per cent), B.C. (61 per cent), Organization (43 per cent), and Technology (41 per cent). At low SES level the hierarchy consisted of G.C. (64 per cent), Service (53 per cent), B.C. (33 per cent), and Organization and Technology (22 per cent each).

When SES levels are combined, G.C. group (77 per cent) is topping, followed by Service (71 per cent), B.C. (60 per cent), and Technology and Organization trailing behind (42 per cent and 35 per cent respectively). Theoretically, entry into jobs should be highly related to professional/technical preparation but for typically technical jobs, strangely enough, the preparation is at the lowest level in this sample.

### *SES Differences*

SES differences when occupational groups are combined, show a steep decline in professional preparation with lowering of SES from High through Low (81, 59, 36 per cent). A scrutiny of the position of groups on this variable, at different SES levels, too, gives a clear picture of declining trend in all occupational groups. Most of the differences between levels are also significant. The only insignificant ones are observed in High and Middle SES B.C. and G.C. groups. Professional/Technical preparation is definitely found related to SES levels of the fathers.

*Job Values/Attitudes:* Respondents' job/work values were studied with the help of a questionnaire consisting of statements referring to nine job values viz; 'traditional/secure job', 'job stability', 'forward looking and non-conservative' 'leaving home not a problem', 'job change not a problem', 'interesting job', 'inter-personal relations', 'self-employment', 'higher level job entry'. The sample for work values consisted of the total number of males of the sample and females of three occupational groups viz. Service, Organization (minus low SES), and General Culture. While some findings on gender differences have been reported, the major analysis consists only of males. Female data were not analyzed in detail due to very low cell frequencies.

**Table 8.9**  
**Professional/Technical/Vocational Qualification**  
**(Males + Females)**

<i>Occupational Group</i>		<i>Service</i>		<i>Business Contact (BC)</i>		<i>Organization</i>		<i>Technology</i>		<i>General Culture (GC)</i>		<i>Total</i>	
SES Level		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
High n	14	1	6	3	5	4	7	0	18	4	50	12	
High %	94	6	67	33	56	44	100	—	82	18	81	19	
Middle n	13	6	20	12	9	12	9	13	17	4	68	47	
Middle %	68	32	61	39	43	57	41	59	81	19	59	41	
Low n	9	8	1	3	6	21	4	14	9	5	29	51	
Low %	53	47	33	67	22	78	22	78	64	36	36	64	
Total n	36	15	27	18	20	37	20	27	44	13	147	110	
Total %	71	29	60	40	35	65	42	58	77	23	57	43	

The data were analyzed using ranks of various values for groups and subgroups.

### ***Group Differences (Males) by SES***

The status of various occupational groups on nine values is given below:

#### ***High SES***

*Service Group* scored very high on four values, viz; 'interesting job' (100 per cent), 'stable job', 'forward looking' and 'inter-personal relations' (85 per cent each). The lowest preference of this group is 'leaving home no problem' (34 per cent). *B.C. Group* is highest on 'interesting job' and 'job changing no problem' (70 per cent each). The low preferences of this group are 'forward looking' (40 per cent) and 'self-employment' (28 per cent). *Organization Group* has shown very high scores on all values (80 per cent and above), except for 'leaving home no problem' (40 per cent). *Technology Group* is very high on values of 'forward looking', 'job changing no problem' (100 per cent each), and 'self-employment' and 'entry at higher level' (85 per cent each). The group has scored very low on 'interpersonal relations' (17 per cent). *G.C. Group* has no peaked scores on values. Their lowest preferences are 'traditional/secure job', 'stable job', 'interesting job' and 'entry at higher level' (38 per cent each).

Overall, Service group is close to Organization Group on about 50 per cent of the values under study. B.C. group is close to G.C. group in being moderate on most of the values. G.C. group is low on stability and job permanence which shows their versatility. Technology group is equally versatile in opting for mobility in search of better jobs and job changes in general. They have also shown non-conservative attitudes. Their low score on interpersonal relations substantiates Roe's (1957) contention about the relationship between personality and orientation towards certain occupations.

#### ***Middle SES***

*Service Group* is very high on 'traditional/secure job', and 'interpersonal relations' (80 per cent each). They are lowest on 'higher level job entry'. *B.C. Group* has shown a high preference for 'forward

looking' (78 per cent) and 'job change no problem' (81 per cent). Their lowest preference is 'leaving home no problem' (39 per cent). *Organization Group* is very high on 'job stability' (86 per cent), 'forward looking' (78 per cent) and 'job change no problem' (78 per cent). This group is lowest on 'interpersonal relations' (40 per cent). In *Technology Group* there are no peaked scores on any of the values under study. The group is lowest on 'interesting job' (39 per cent). *G.C. Group* does not indicate any strong preference. They are, however, lowest on 'self-employment' (27 per cent).

A comparative scrutiny indicates that there is very little in common between any two or more groups in the Middle SES.

### *Low SES*

This group suffered from inadequacy of sample in most of the groups. However, findings are reported. *Service Group* has shown a high preference for 'stable job' (84 per cent), 'interpersonal relations' (77 per cent), 'self-employment'. 'Leaving home no problem', and 'job change no problem' (70 per cent each). The group has shown a low preference for 'higher level job entry' (42 per cent). *B.C. group* is the most undifferentiated group, showing a flat profile of scores on values while *Organization group* has shown none of the high scores, at the same time scoring very low on 'interpersonal relations' and 'self-employment'. *Technology group*, too, is not high on any of the values but is lowest on 'traditional secure job', 'stable job' and 'leaving home no problem'. *G.C. group* like the *B.C. group* is most undifferentiated.

### *SES Differences*

Differences in preference for different values given by the three SES groups as discussed below have been observed.

1. High SES group (74 per cent) is significantly higher than both Middle SES (65 per cent) and low SES (59 per cent) on 'job change not a problem'. High SES group (59 per cent) is also significantly higher than Middle SES (40 per cent) and low SES (37 per cent) on 'interesting job'. High SES group (59 per cent) is significantly higher than Middle SES and low SES (47 per cent each) on 'self-employment'. Lastly, High and Middle SES groups (51 per cent each) are significantly higher than low SES (38 per cent) on 'entry at higher level'.

2. Middle SES (70 per cent) is significantly higher than High SES (53 per cent) on 'job stability'. Middle SES (82 per cent) is significantly higher than both High SES (69 per cent) and Middle SES (50 per cent) on 'forward looking'.
3. Low SES (80 per cent and 64 per cent) is significantly higher than High SES (57 per cent and 53 per cent respectively) on 'traditional/secure job' and 'job stability'.

On 'leaving home not a problem' and 'Interpersonal relationships' no significant differences have appeared among various SES groups.

#### *Sex Differences*

Overall sex differences have appeared only on 'job stability', 'forward looking' and 'job change not a problem'. On 'job stability' males (68 per cent) are significantly higher than females (57 per cent). On 'forward looking' females (72 per cent) are significantly higher than males (62 per cent). On 'job change not a problem' too, females (61 per cent) are nearly significantly higher than males (52 per cent). However, SES as an intervening variable gives a different picture. High SES males are significantly higher than their female counterparts while the reverse holds true for Middle and Low SES group on preference for 'traditional/government job'. On 'job stability' High SES males and Low SES males are higher than their female counterparts. On 'forward looking', High and Middle SES females are significantly higher than males and in Low SES, males are significantly higher than females. On 'leaving home no problem', High and Low SES males are significantly higher than their female counterparts, while in Middle SES group the reverse holds true. On 'job change not a problem' there are no sex differences in Middle SES group while High and Low SES males are significantly higher than females. On 'interesting job' high SES males are significantly higher than females. On 'interpersonal relations' Low SES males are significantly higher than their female counterparts. No significant differences exist on self-employment. Lastly, on 'entry at higher level', Middle and Low SES males are significantly higher than females. No sex differences in this value have appeared in High SES group.

## SECTION-II

### *Analysis on Post-Entry Career Behaviour/Adjustment Variables*

Career maturity, beginning at purely a fantasy level (Ginzberg, 1951, 84; Super, 1957) and passing through phases of aspiration, vocational preference, and vocational choice (Crites, 1969, page 132), has the most healthy culmination in entry into an occupation which is the direct consequence of ultimate vocational choice. In reality, however, the educational and career plans formulated prior to actual entry into work may not materialize due to a number of factors, and the individual may have to make a compromise by entering either somewhat related or entirely unrelated career. Some findings in this regard are presented here on an important dimension viz. realism of career choice.

#### *Realism of Educational and Career Plans*

Realism of career plans is an important dimension of career maturity. Aspirations regarding the type and level of career one wants to enter are manifested at a stage when the individual is not mature enough on career maturity dimensions. Fantasies start waning when one is between 10-12 years. Eventually tentative plans (Ginzberg, 1951, 1984) start taking shape through a consideration of one's interests, capacities, and values. The exploratory behaviours of the realistic period bring in the information about what is feasible and what is not in the outside world of work and what it is that matches with self-concept. The outside reality may or may not pose challenges to attainment of these goals. Accordingly one may prove to be quite consistent in one's study plans for the future, or one may show a great discrepancy between initial plans and later attainments. With this in view, an attempt was made to make an assessment of realism/consistency between (i) initial study plans and the study level attained and (ii) pre-entry career plans and occupation entered.

#### *Initial Study Plans and Study Level Attained*

#### *Group Differences (Males) by SES*

#### *High SES*

Table 8.10 shows that consistency of a high order between study plans and attainments has been arrived at in the case of Service (85 per

cent), Organization (75 per cent), B.C. (70 per cent). Moderate consistency level has been obtained for Technology (50 per cent) and G.C. (40 per cent). That the last group is the most inconsistent is quite apparent. Overall, High SES males are consistent to the tune of 65 per cent which is considerably higher than inconsistency (35 per cent).

### *Middle SES*

The highest level of consistent choices in this group amounts to 60 per cent in Technology group and the lowest level is observed in Organization and G.C. groups (44 per cent each). Service and B.C. groups have scored 55 per cent and 57 per cent. Overall, consistency level (53 per cent) is not significantly higher than inconsistency (47 per cent).

### *Low SES*

The highest consistency obtained is for G.C. (80 per cent) followed closely by Technology (75 per cent). Service (37 per cent) and B.C. (33 per cent) are sharply contrasted with the former two. Organization is 52 per cent consistent, falling in between the two sets of groups. On the total sample, consistency (57 per cent) is considerably higher than inconsistency (43 per cent). When SES levels are combined, the groups show the hierarchy of Technology (65 per cent), B.C. (58 per cent), Service and Organization (54 and 53 per cent), and G.C. (49 per cent).

### *SES Differences (Males)*

In general, High SES (65 per cent) is considerably more consistent than Middle SES (52 per cent) but not so as compared to low SES (57 per cent). SES differences on consistency within groups are striking in the case of Service, (85 per cent through 37 per cent), B.C. (70 per cent through 33 per cent), Organization (75 per cent through 50 per cent), and G.C. (80 per cent through 40 per cent). It is to be noted that hierarchical order of various SES levels in the case of various groups was not found to be the same.

**Table 8.10**  
**Consistency Between Study Plans and Study Level Achieved**  
**(Males/Females)**

(Number and Percentage\* of Respondents Showing Consistency)

<i>Occupational Group</i>		<i>Service</i>		<i>Business Contact (F.C.)</i>		<i>Organization</i>		<i>Technology</i>		<i>General Culture (GC)</i>		<i>Total</i>		
<i>SES Level</i>	<i>N</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	
<b>High</b>	<b>N</b>	<b>5</b>	<b>7</b>	<b>5</b>	<b>2</b>	<b>6</b>	<b>1</b>	<b>3</b>	<b>—</b>	<b>2</b>	<b>7</b>	<b>21</b>	<b>17</b>	
	<b>%</b>	<b>85</b>	<b>87</b>	<b>70</b>	<b>—</b>	<b>75</b>	<b>—</b>	<b>50</b>	<b>—</b>	<b>40</b>	<b>47</b>	<b>65</b>	<b>64</b>	
<b>Middle</b>	<b>N</b>	<b>6</b>	<b>7</b>	<b>16</b>	<b>1</b>	<b>7</b>	<b>7</b>	<b>12</b>	<b>—</b>	<b>12</b>	<b>2</b>	<b>53</b>	<b>17</b>	
	<b>%</b>	<b>55</b>	<b>64</b>	<b>57</b>	<b>33</b>	<b>44</b>	<b>78</b>	<b>60</b>	<b>—</b>	<b>44</b>	<b>33</b>	<b>52</b>	<b>58</b>	
<b>Low</b>	<b>N</b>	<b>4</b>	<b>3</b>	<b>1</b>	<b>—</b>	<b>12</b>	<b>4</b>	<b>12</b>	<b>—</b>	<b>4</b>	<b>—</b>	<b>34</b>	<b>7</b>	
	<b>%</b>	<b>37</b>	<b>60</b>	<b>33</b>	<b>—</b>	<b>50</b>	<b>67</b>	<b>75</b>	<b>—</b>	<b>80</b>	<b>—</b>	<b>57</b>	<b>64</b>	
<b>Total</b>	<b>N</b>	<b>15</b>	<b>17</b>	<b>22</b>	<b>1</b>	<b>26</b>	<b>12</b>	<b>27</b>	<b>—</b>	<b>18</b>	<b>9</b>	<b>108</b>	<b>39</b>	
	<b>%</b>	<b>54</b>	<b>71</b>	<b>58</b>	<b>20</b>	<b>53</b>	<b>75</b>	<b>65</b>	<b>—</b>	<b>49</b>	<b>42</b>	<b>56</b>	<b>58</b>	

\* Calculated out of total 'N' including number inconsistent (not shown here).

### ***Group Differences (Females) by SES***

Among *High SES* females, information on B.C. and Organization was too inadequate to report. Of the remaining three groups, Service (87 per cent) is considerably higher than G.C. (47 per cent). For Technology there is no information. For *Middle SES*, Organization (78 per cent) is highest on consistency followed by Service (64 per cent) and G.C. (33 per cent). In *Low SES* group, Organization (67 per cent) is closely followed by Service (60 per cent), G.C. has no information. Overall (all SES levels combined), Organization (75 per cent) is closely followed by Service (71 per cent) and then G.C. (42 per cent).

### ***Sex Differences***

Due to a paucity of data on females, sex differences have not been interpreted.

### ***Reasons for Discontinuing Studies Despite Plans for Further Study***

In a structured schedule, four probable reasons for discontinuing studies despite plans for further studies were investigated. Group-wise and level-wise analysis is discussed below:

### ***Group Differences by SES***

Findings revealed that among High SES respondents the lack of consistency was relatively much less as compared to either Middle or low SES groups, particularly in the case of Service, B.C., and Organization. For High SES Technology and G.C. it is 50 per cent and 40 per cent respectively. Correspondingly, reasons for discontinuing studies despite plans for further study have also been elicited in these two groups only, though only about 25 per cent of Technology group have given the reason that they just happened to enter the job and 50 per cent said that they had discontinued studies as they had started working. About 12 per cent reported each of family pressure and friends' influence. None reported exposure to work situation. In G.C. as in Technology group, 25 per cent reported accidental entry into work, 18 per cent family pressure, 8 per cent friends' influence and only 4 per cent reported exposure to part time work as the reason.

In the Middle SES group, accidental job entry was reported most of all by B.C. (22 per cent), followed by G.C. (18 per cent),

Organization (14 per cent), and Technology (4 per cent). Family pressure was given as the strongest reason by Technology (25 per cent), Service (21 per cent), G.C. (18 per cent), Organization (13 per cent), and B.C. (3 per cent). Exposure to part time work was strongest in G.C. group (12 per cent) followed with very low incidence in Technology (8 per cent), Service (7 per cent) and B.C. (3 per cent). Friends' influence was the highest in Service group followed by G.C. (15 per cent), B.C. (14 per cent), Technology (13 per cent), and Organization (10 per cent).

At the low SES level, two of the reasons like family pressure and exposure to part-time work stood out as significantly more important than the other two reasons in four of the five groups leaving out G.C. B.C. (33 per cent) is the highest on family pressure, followed by Organization (26 per cent), Service (22 per cent), and Technology (5 per cent) trailing much behind others. Exposure to work is significantly the highest in B.C. group (66 per cent) followed by friends' influence in the remaining groups ranging between 13 per cent and 10 per cent. Findings about B.C. group may not, however, be regarded as very authentic because of very small sample size.

### *SES Differences*

Differences in career behaviour at three levels of SES are quite evident in that the High SES group has shown highly consistent behaviour in respect of educational plans and achievements. The Middle SES group has given maximum reasons in general for changes in educational plans, with accidental job entry and family pressure being the most significantly mentioned reasons. Low SES is high on family pressure and exposure to part time work as significant factors in discontinuing studies.

### *Consistency Between Pre-Entry Career Plans and Present Occupation: Occupational Group Differences (Males) By SES High SES*

As can be seen in Table 8.11, four of the five groups viz; Service and B.C. (100 per cent each), Organization (85 per cent), and Technology (87 per cent) have recorded an extremely high level of consistency. G.C. group (50 per cent) is only at a moderate level.

**Table 8.11**  
**Consistency Between Pre-Entry Career Plans and Present Occupational Group**  
**(Males/Females)**

(Number and Percentage\* of Respondents Showing Consistency)

<i>Occupational Group</i>	<i>Service</i>		<i>Business Contact (BC)</i>		<i>Organization</i>		<i>Technology</i>		<i>General Culture (GC)</i>		<i>Total</i>
	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	
<b>SES Level</b>											
<b>High</b>	<b>N</b>	6	6	7	1	6	1	5	—	2	12
	<b>%</b>	100	67	100	50	85	—	87	—	50	72
<b>Middle</b>	<b>N</b>	7	6	15	2	4	5	12	—	14	5
	<b>%</b>	63	67	66	67	24	56	60	—	56	83
<b>Low</b>	<b>N</b>	6	2	1	—	12	4	11	—	4	—
	<b>%</b>	54	67	50	—	50	80	69	—	80	—
<b>Total</b>	<b>N</b>	19	14	23	3	22	10	28	—	20	17
	<b>%</b>	68	67	72	60	46	68	67	—	59	74

\* Calculated out of total 'N' including number inconsistent (not shown here).

### *Middle SES*

Consistency level ranging between 56 per cent and 66 per cent is recorded for Service, B.C., Technology, and G.C. There is a significant difference between B.C. (66 per cent) and G.C. (56 per cent). Organization group (24 per cent) is extremely low.

### *Low SES*

The highest level of consistency is seen here in G.C. group (80 per cent) followed by significantly less but considerable consistency in Technology (69 per cent), which in turn is followed by the remaining three groups, their incidence ranging between 50 and 54 per cent.

Overall, consistency is significantly higher than inconsistency in the case of Service (68:32), B.C. (72:28), Technology (67:33), and G.C. (59:41). Reverse holds true for Organization group (46:54). The highest level of consistency is shown by B.C. group (72 per cent).

### *SES Differences (Males)*

Steady decline in consistency level is noticed in the case of Service and B.C. moving from High SES through Low SES, differences between any two levels being significant too. Similar trend is seen in case of Organization and Technology for High and Middle SES levels. However, in both cases Low SES falls in between High and Middle SES. G.C. group, on the contrary, has shown a rising trend in consistency moving downwards on SES ladder. Barring group differences, overall consistency level is significantly higher than inconsistency in case of all three SES levels (86:14; 54:46; 61:39 respectively for High, Middle, Low). The highest consistency is noticed in the case of High SES.

### *Group Differences (Females) by SES*

Data for Technology group were not available at any SES level. In High SES group Service (67 per cent) and G.C. (72 per cent) showed a significantly higher level of consistency. B.C. group (50 per cent) is significantly lower than the other two groups. At Middle SES level extremely high level of consistency is seen for all the four groups, ranging between 83 and 56 per cent. G.C. group (83 per cent) is significantly the highest. At Low SES level, information regarding

Service (67 per cent) and Organization (80 per cent) only is available. Here consistency is significantly higher than inconsistency. Organization group is scoring higher than Service group.

Overall, consistency level is significantly higher than inconsistency for all groups. G.C. group topping the list (74 per cent). B.C. group (60 per cent) is lowest and significantly less than G.C. group.

### ***SES Differences (Females)***

There are no SES differences at all in Service group. B.C. Middle SES group (67 per cent) is significantly higher than High SES (50 per cent). Organization Low SES (80 per cent) is significantly higher than Middle SES (56 per cent). Middle SES G.C. (83 per cent) is significantly higher than High SES (72 per cent). For the remaining groups and levels there is no information.

For all groups combined, no significant differences between the three SES levels are found. However, information is not available for many sub-groups and the number of cases at low SES is too small to give conclusive evidence.

### ***Sex Differences***

Consistency-Inconsistency ratios for the total groups of males and females are in the same direction for Service, B.C. and G.C. groups with consistency being higher. Organization males are higher on inconsistency than consistency. Technology data are incomplete. Consistency of Service, B.C. and G.C. female groups ranges between 60 and 74 per cent. B.C. males and G.C. females are the most consistent (72 and 74 per cent respectively). Males and females differ significantly on consistency at all the three SES levels.

### ***Job Stability/Mobility***

Career behaviour and adjustment after embarking upon a career is also reflected in indicators like satisfaction on the job, job changes, vertical job mobility leading to advancement, job stability, etc. Super (1957) contended that exploratory period is the period of greatest occupational mobility in one's career. He attributed this floundering, among other things, to one's efforts to find a suitable job, and job

situation in line with one's self-concept and personality development. The extent to which one is liable to job changes also partly depends upon the state of economy and employment situation at a given period in a given society. However, the contention that stability (roughly defined as end of floundering by Miller and Form (1947) and as a job pursued for more than 3 years no matter whether it necessarily comes after a period of advancement or not) in career ensues as a result of success/failure experiences, maturity, and familial and social commitments seems to hold true of societies in general. In the present study a few of such indicators were investigated - specially, mobility/stability on the job was studied by using various aspects of information such as number of job changes, duration of jobs at various stages etc. The findings are presented below.

#### *Job Stability/Mobility I : Number of Job Changes*

##### *Group Differences (Males) by SES*

As seen in Table 8.12, among High SES males maximum job change applies to G.C. Group (3.0) followed by Organization and Technology (2.0 each), Service (1.7), and B.C. (1.4). Middle SES males of Organisation, Technology and G.C. groups (2.0 each) are alike. Low SES males have shown the maximum job changes in Service Group (2.0) followed by B.C., Organisation, and Technology (1.5, 1.6, 1.7 respectively). G.C. group is the most stable (1.0). On the three SES levels, males of different groups have shown a profile indicative more of stability and less of mobility.

##### *SES Differences*

The general picture on this variable is one of uniformity between various levels within groups and on the total of groups. Some significant amount of difference is noticeable in G.C. group where moving downwards on SES there seems to be a definite decline in the number of jobs held (3.0 to 1.0). Job stability appears to be more characteristic of Low SES. On the whole, average number of jobs has gone down to anything between 1.0 and 1.4 (Low SES) from 2.0 (High SES).

**Table 8.12**  
**Average No. of Jobs Held**  
**(Males/Females)**

<i>Occupational Group</i>	<i>Service</i>		<i>Business Contact (BC)</i>		<i>Organization</i>		<i>Technology</i>		<i>General Culture (GC)</i>		<i>Total</i>	
	M	F	M	F	M	F	M	F	M	F	M	F
SES Level												
High	1.7	2.0	1.4	2.0	2.0	1.0	2.0	1.5	3.0	1.4	2.0	1.6
Middle	1.7	1.4	1.7	1.4	2.0	1.3	2.0	2.0	2.0	1.3	1.9	1.5
Low	2.0	1.0	1.5	2.0	1.6	1.9	1.7	—	1.0	—	1.4	1.6
Total	1.8	1.5	1.5	1.8	1.9	1.4	1.9	1.7	2.0	1.3	1.8	1.5

### **Group Differences (Females) by SES**

At High SES level females are highest on job mobility in Service and B.C. (2.0 each) groups. Organization group (1.0) is lowest. At middle SES level, Technology group (2.0) is highest and Organization (1.3) is lowest. At Low SES level, B.C. and Organization (2.0 and 1.9) are the highest while Service (1.0) is the lowest.

The intergroup figures when all SES groups are combined give a range of 1.3 to 1.8 jobs on an average for various groups, the lowest being G.C. and the highest being B.C.

### **SES Differences**

The number of job changes by SES shows that Service group has gone down from 2.0 to 1.0 as we go down the SES ladder. Middle SES B.C. group (1.4) is lower than both of the other SES levels (2.0 each). Organization group has given a profile opposite of Service group; the average number of job changes being 1.9 at low SES and 1.0 at High SES. Middle SES Technology group (2.0) is higher on job mobility than High SES Technology group. There are no SES differences for G.C. group. When all groups are combined, no SES differences have resulted.

### **Sex Differences**

Overall sex differences on job changes by occupational group are negligible for all the groups except G.C. where male-female difference amounts to an average of .7 jobs. Overall sex differences by SES do not seem to be significant in any manner. When group level combinations are considered, High and Middle SES Organization groups have shown a sex difference of 1.0 and .7 at two levels respectively - males being higher on mobility. The same is true of High and Middle level G.C. group, where a difference of 1.6 and .7 on an average number of jobs at the two respective levels is observed. The remaining differences consist of less than .5 jobs on an average.

### **Job Stability/Mobility II : Average Duration of 1 Job in Case of Job Change**

#### **Group Differences (Males) By SES**

##### **High SES**

Table 8.13 shows that average duration of first job of those who made a subsequent change in their job ranged between 1 year and 7

**Table 8.13**  
**Average Duration\* (in years) of I Job in Case of Job Change**  
**(Males/Females)**

SES Level	Occupational Group	Service		Business Contact (BC)		Organization		Technology		General Culture (GC)		Total
		M	F	M	F	M	F	M	F	M	F	
High Ratio	N	4	2 (2:1)	1 (1:2)	2	6 (1:1)	8 (1:1)	7 (7:1)	1 (1:1)	3 (1:1)	4 (1:1)	4 3 (1:1)
Middle Ratio	N	6 (2:1)	3 (1:1)	3 (1:1)	4 (1:1)	2 (1:1)	2 (1:1)	6 (6:1)	1 (1:1)	3 (1:1)	4 (1:1)	4 3 (1:1)
Low Ratio	N	4 —	— (1:1)	1 (1:1)	1 (1:1)	8 (1:1)	6 (1:1)	6 —	— —	— —	— —	4 — (1:1)
Total	N Ratio	5 (2:1)	3 (1:1)	2 (1:1)	2 (1:1)	5 (1:1)	5 (1:1)	6 (6:1)	1 (1:1)	3 (1:1)	4 (1:1)	4 3 (1:1)

\* Duration presented in years (approx.)

years across the occupational groups with the longest period shown by Technology, followed closely by Organization. For Service and G.C. this duration is 4 years and 3 years respectively. B.C. is trailing much behind (1 year).

### *Middle SES*

The range of average duration here consists of 2 years to 6 years with the longest duration manifested by Service and Technology followed by B.C. and G.C. (3 years each). For Organization it came down to 2 years.

### *Low SES*

Out of the four groups for which data were available (no cell frequency for G.C.) average duration falls between 1 year and 8 years, with Organization topping the list, followed by Technology (6 years), Service (4 years), and B.C. (1 year). Considering the durations for the total occupational groups, the highest duration is shown by Technology (6 years), closely followed by Service and Organization (5 years each), then G.C. (3 years) and B.C. (2 years).

### *SES Differences*

Overall SES differences do not exist at all (4 years at each level). Service and B.C. have shown similar profiles of average duration at the three SES levels with Middle SES for each group being much higher than the other two levels. For Technology and G.C., SES differences do not exist at all. But for Organization, Middle SES group is significantly lower than the High and Low SES showing average duration of 6, 2 and 8 years for High through Low SES.

### *Group Differences (Females) By SES*

#### *High SES*

For females (Table 8.13) of High SES, average duration ranges between 1 year and 8 years, with Organization being the highest, G.C. (4 years) follows with a considerable gap. Service and B.C. (2 years) and Technology (1 year) constitute the lower ranks. Average duration of the total of occupational groups is 3 years.

### *Middle SES*

The range at this level consists of 1 to 4 years with B.C. and G.C. topping the list. Next in the hierarchy come Service (3 years), Organization (2 years), and Technology (1 year). Average duration of the total of the group is 3 years.

### *Low SES*

Female data were available only for B.C. and Organization. The latter has shown an average duration of 6 years while for the former it is 1 year.

### *SES Differences*

While overall SES differences for females are non-existent, Middle SES B.C. and G.C. groups have shown higher stability level than other SES levels. High and Low SES Organization groups have shown the highest stability level. Middle SES Organization is the lowest on stability. On Technology and G.C. there are no SES differences.

### *Sex Differences*

Sex differences when SES levels are combined are pronounced for Technology sample (Male : Female = 6:1) followed by Service (2:1). The remaining groups do not show such differences. SES-wise, there are no differences at all when groups are combined. When group-level sub-groups are considered, significant male-female ratio such as High SES Service (2:1), Middle SES Service (2:1), High SES Technology (7:1) and Middle SES Technology (6:1) are found. The trends in stability here are clearly in favour of males.

### *Job Stability/Mobility III: Relationship Between 1 Job and Present Job*

Miller and Form (1964) came across stable career patterns manifested as initial-trial-stable, trial-stable, stable-trial-stable, etc., concluding thereby that even if there are frequent job changes initially, if the end result is stability, it is a stable career pattern. Accordingly, if the persons are found to be holding their current job for a considerable period of time, particularly when initially, frequent job changes have

taken place, one may conclude with confidence that stability has set into this individual's career. An attempt was made in the present study to find out group differences in the sample on the variable of stability inferred through relationship between duration of stay in initial job and the present job. The initial period, however, is not necessarily that of instability in the present sample as per Miller and Form's (1947) definition of a minimum of three years on a job. It is the relative duration of the first and the current job, which incidentally, has been found to be markedly different in so far as the duration on the present job is manifold greater than the first job. Job stability in the initial phases also sets in early in India due to non-availability of opportunities for frequent job changes. Hence the period on the initial job on an average is presumed to be longer than three years even if the changes have occurred afterwards as has also been found in part-II (Table 8.13) of this analysis on job stability.

Another strength of the present analysis is that this factor of duration on initial job is a constant factor in various groups under consideration. Analysis of any type is here targeted at studying intergroup differences. Hence any bias at all, gets neutralized.

### ***Group Differences (Males) by SES***

#### ***High SES***

Table 8.14 shows that B.C. group (1:10) has shown a remarkable degree of difference on duration of first job and that of current job. Service (1:4) which is next is markedly lower than B.C. but is higher than the remaining three groups (1:2 each) suggesting that B.C. group stabilizes earlier than other groups.

#### ***Middle SES***

While three groups viz., B.C., Organization, and G.C. (1:5 each) are not different here, Service and Technology (1:1, 1:1.7) are markedly lower than the other three groups.

#### ***Low SES***

B.C. group (1:9) is significantly the highest, followed by Service (1:3) and then Technology (1:2) and Organization (1:1).

Overall group differences on ratio of duration on I and present job when levels are combined amount to a ranking of B.C., Organization and G.C., and Service and Technology in a descending order. The pattern is very similar to that of Middle SES group.

### ***SES Differences***

Overall SES differences do not exist at all for High and Middle SES levels (1:3 each). Low SES is, however, lesser (1:2) in stability on current job as compared to the other two levels.

While SES profiles for the groups are similar in the case of Service and B.C. with Middle SES falling in the middle range of stability, Organization and G.C. have given a different picture altogether. Here Middle SES is markedly higher than either High or Low SES (excluding low SES G.C.). Technology group has given a flat profile. When group level pairing is done High and low SES B.C. is topping in stability, followed by Middle SES B.C., Organization, and G.C. Middle SES Service and Low SES Organization have not shown any difference in duration on first and current jobs.

### ***Group Differences (Females) By SES***

#### ***High SES***

Table 8.15 shows that Technology group (1:7) is highest on stability on present job, followed by B.C. (1:5). Organization is the lowest (1:1).

#### ***Middle SES***

Technology group (1:15) is highest on stability, followed by Organization (1:6), B.C. group (1:1.5) is the lowest.

#### ***Low SES***

B.C. group (1:14) is markedly higher than Organization (1:1). There is no information about the other three groups.

Technology group is, on the whole, significantly the highest, followed by B.C., Service and G.C., and Organization.

**Table 8.14**  
**Average Duration I Job and Current (P) Job (Males)**  
 (in years)

<i>Occupational Group</i>		<i>Service</i>		<i>Business Contact (BC)</i>		<i>Organization</i>		<i>Technology</i>		<i>General Culture (GC)</i>		<i>Total</i>	
<i>SES Level</i>		<i>I Job</i>	<i>P Job</i>	<i>I Job</i>	<i>P Job</i>	<i>I Job</i>	<i>P Job</i>	<i>I Job</i>	<i>P Job</i>	<i>I Job</i>	<i>P Job</i>	<i>I Job</i>	<i>P Job</i>
Average duration ratio	High (approx.)	4 (1:4)	16 (1:4)	1 (1:10)	10 (1:2)	6 (1:2)	11 (1:1)	7 (1:1)	11 (1:1)	3 (1:2)	7 (1:2)	4 (1:3)	11 (1:3)
A.D. ratio	Middle	6 (1:1)	7 (1:5)	3 (1:5)	14 (1:5)	2 (1:5)	11 (1:5)	6 (1:5)	10 (1:5)	3 (1:5)	15 (1:5)	4 (1:5)	11 (1:5)
A.D. ratio	Low	4 (1:3)	12 (1:9)	1 (1:9)	9 (1:1)	8 (1:1)	10 (1:1)	6 (1:1)	11 (1:1)	— (1:2)	— (1:2)	— (1:2)	— (1:2)
Total	A.D. Ratio	5 (1:2)	11 (1:5)	2 (1:5)	11 (1:4)	3 (1:4)	11 (1:4)	6 (1:2)	11 (1:2)	3 (1:4)	12 (1:4)	4 (1:3)	11 (1:3)

**Table 8.15**  
**Average Duration I Job and Current (P) Job (Females)**  
 (in years)

Occupational Group	Service		Business Contact (BC)		Organization		Technology		General Culture (GC)		Total
	I Job	P Job	I Job	P Job	I Job	P Job	I Job	P Job	I Job	P Job	
Average duration ratio (approx.)	2 (1:2)	5	2	10 (1:5)	8	8	1 (1:1)	7 (1:7)	4 (1:3)	11 (1:3)	3 8
Middle ratio	A.D. 3 (1:3)	8	4	6 (1:1.5)	2 (1:6)	13 (1:15)	1 (1:15)	15 (1:15)	4 (1:3)	13 (1:4)	3 11
Low ratio	A.D. —	7	1	14 (1:14)	6 (1:1.3)	8 (—)	— (—)	— (—)	— (—)	— (—)	— 10
Total ratio	A.D. 2.5 (1:3)	7.0	2	10 (1:5)	5 (1:2)	10 (1:11)	1 (1:11)	11 (1:11)	4 (1:2)	12 (1:3)	3 70 (1:3)

### ***SES Differences***

On the whole, High (1:3) and Middle (1:4) groups do not differ much. Low SES information is inadequate. SES profiles within groups are very different from each other giving an inconclusive picture. Group-level pairing shows that High and Middle SES Technology, Low SES B.C., Middle SES Organization groups are falling in the range of high to extremely high stability. High and Middle SES Service, High and low SES Organization, and High and Low SES G.C. are falling at the lowest level of stability.

### ***Sex Differences***

Inter group profiles of total sample of males and females have shown the most striking difference in ratio of duration on first job and present job in the case of Technology where females are significantly higher in stability in the sense of its having been set in at an early stage (average duration first job one year only). For males this average duration is 6 years, though the period on the current job on an average is about the same for the sexes. For Organization, Males have shown higher stability (Males and Females being 1:4 and 1:2).

SES profiles on job stability for the total samples have not yielded any differences.

### ***Job Stability/Mobility-IV.1 : Cases Holding One Job Only***

Job mobility/stability is partly related to the kind of enterprise, level of functioning, and a few other situations. As such, Indian job situation imposes limits on mobility of workers. However, as seen earlier, movement does take place to some extent. It was the aim here to ascertain the extent to which individuals stay on their first job itself and whether there are differences between various occupational groups and SES levels in this regard. This analysis was done using two kinds of information: (i) incidence of cases holding one job only, and (ii) incidence of cases holding more than two (multiple) jobs.

### ***Group Differences (Males) By SES***

#### ***High SES***

Table 8.16 reveals that the groups can be ordered in descending order with the highest incidence in the case of Service (66 per cent) followed by B.C. and Technology (57 per cent each) and then Organization (50 per cent). G.C. group does not have a single case of this nature.

#### ***Middle SES***

B.C. (57 per cent), Organization (54 per cent), and G.C. (53 per cent) are closely placed on the higher side of the hierarchy. Technology (41 per cent) and Service (38 per cent) are significantly lower than the other three groups.

#### ***Low SES***

100 per cent of G.C. males have reported to be holding a single job. Organization (58 per cent) follows with a large gap. Next in the hierarchy are Technology (53 per cent) and B.C. (50 per cent). Service (33 per cent) is significantly the lowest.

Overall group differences are negligible, except Service which is considerably lower than the rest.

### ***SES Differences***

Overall SES differences are significant in so far as Low SES (59 per cent) and High SES (57 per cent) are considerably higher on the factor of 'holding one job only' as compared to Middle SES (49 per cent). The highest level of variations between SES levels with regard to specific groups is seen for G.C. ranging from 0 per cent for High SES to 100 per cent for low SES. Service with High SES group having 66 per cent and low SES 33 per cent has given a reverse picture. Among the remaining three groups only Technology has shown Middle SES (41 per cent) to be significantly lower than both the High and the Low SES levels.

**Table 8.16**  
**Cases Holding One Job Only**  
**(Males/Females)**

<i>Occupational Group</i>	<i>Service</i>		<i>Business Contact (BC)</i>		<i>Organization</i>		<i>Technology</i>		<i>General Culture (GC)</i>		<i>Total</i>		
	M	F	M	F	M	F	M	F	M	F	M	F	
SES Level													
High %	66	42	57	50	50	—	57	50	0	73	57	54	
Middle %	38	78	57	60	54	78	41	50	53	75	49	68	
Low %	33	100	50	—	58	29	53	—	100	—	59	—	
Total %	46	73	55	55	54	54	50	50	51	74	55	61	

### ***Group Differences (Females) By SES***

#### ***High SES***

The hierarchical order for High SES females consists of an exceptionally high G.C. (73 per cent), followed by B.C. and Technology (50 per cent) each, and then Service (42 per cent). Organization data are not available.

#### ***Middle SES***

The incidence at this level is very high for Service (78 per cent), Organization (78 per cent), and G.C. (75 per cent). B.C. (60 per cent) comes next, followed in turn by Technology (50 per cent).

#### ***Low SES***

Out of the two groups for which information is available, Service (100 per cent) is markedly higher than Organization (29 per cent).

Overall group differences reveal G.C. and Service (74 and 73 per cent) to be significantly the highest followed by B.C., Organization, and Technology (between 55 per cent and 50 per cent).

### ***SES Differences***

While Low SES information is too inadequate (only two groups) to be used, Middle SES (68 per cent) is markedly higher than High SES (54 per cent) on the factor of 'holding one job only'. Within groups, Service with a profile of 42 per cent, 78 per cent, and 100 per cent in descending order of SES gives an interesting profile. B.C. Middle SES (60 per cent) is also significantly higher than High SES (50 per cent). On the contrary Middle SES Organization (78 per cent) is significantly higher than low SES (29 per cent). On the remaining groups, SES differences are non-existent.

On overall SES comparisons, Middle SES (68 per cent) is significantly higher than High SES (54 per cent). Low SES information being too inadequate was not comparable.

### ***Sex Differences***

Overall sex differences for groups are significant in the case of Service (46:73) and G.C. (51:74) where females are exceeding males. On the remaining groups there are absolutely no differences.

Overall sex differences for levels are significant for Middle SES (49:68 per cent) but insignificant for High SES (57:54 per cent). Low SES female information is too inadequate to be interpreted.

Group-level combinations are most striking in the case of High SES G.C. (0:73), Low SES Service (33:100), Middle SES Service (38:78), Middle SES Organization (54:78), and Middle SES G.C. (53:75) where females are more stable than males. Males are more stable than females in the case of High SES Service (66:42) and Low SES Organization (58:29).

#### *Job Stability/Mobility IV-2 : Cases Holding Multiple Jobs (more than two)*

##### **Group Differences (Males) By SES High SES**

Table 8.17 reveals that the maximum number of cases holding multiple jobs belongs to G.C. (25 per cent) followed by Service (17 per cent), Organization (8 per cent), and B.C. with no incidence at all.

##### **Middle SES**

Among males at this SES level the incidence in various groups falls in the range of 23 per cent to 17 per cent which does not indicate a strong hierarchy.

##### **Low SES**

Service group (33 per cent) is topping with a significantly lesser number (24 per cent) for Technology group, followed by significantly lesser number in Organization (13 per cent).

B.C. and G.C. have shown no mobility at all at this level.

On the whole, inter-group differences show a hierarchy consisting of Technology (28 per cent), Service (24 per cent), G.C. (23 per cent), Organization (19 per cent) and B.C. (11 per cent). Higher mobility is true of the first three groups whereas the last two groups are less mobile.

##### **SES Differences**

On the whole, the SES hierarchy consists of Middle SES (20 per cent) followed by both High and Low SES (13 per cent each). Group

Table 8.17  
Cases Holding Multiple Jobs (More than Two)  
(Males/Females)

<i>Occupational Group</i>	<i>Service</i>		<i>Business Contact (BC)</i>		<i>Organization</i>		<i>Technology</i>		<i>General Culture (GC)</i>		<i>Total</i>
	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	
High %	17	33	0	50	8	—	14	—	25	11	13 19
Middle %	23	17	21	0	17	11	18	50	20	0	20 16
Low %	33	0	0	—	13	14	24	—	0	—	13 3
Total %	24	25	11	25	19	13	28	25	23	6	21 19

level combinations show the highest mobility in low SES Service (33 per cent) followed by Low SES Technology, Middle SES Service, High and Middle SES G.C., and Middle SES B.C. to be falling somewhere between 24 per cent and 21 per cent. B.C. High and Low SES groups are not at all mobile. The moderate level of mobility (between 8 and 18 per cent) is seen in case of High SES Service, Middle and Low SES Organization, and Middle and High SES Technology.

### ***Group Differences (Females) by SES***

#### ***High SES***

Out of the three groups for which data are available, B.C. (50 per cent) and Service (33 per cent) are quite high on mobility while G.C. (11 per cent) is low.

#### ***Middle SES***

Out of the four groups for which data are available, Technology (50 per cent) is very high as compared to Service (17 per cent), and Organization (11 per cent). B.C. and G.C. are not at all mobile (0 per cent each).

#### ***Low SES***

Female data at this level are available only for Service (0 per cent) and Organization (14 per cent). The difference in mobility is clearly seen here.

Overall, females are the same on mobility for Service, B.C., and Technology group (25 per cent each). Organization (13 per cent) is significantly less, followed by the least mobile group of G.C. (6 per cent).

### ***SES Differences***

The SES profile of mobility of female workers consists of the highest mobility (19 per cent) at High SES, followed by Middle SES (16 per cent). Low SES (3 per cent) is significantly less mobile and very little so, too.

Group level combinations show that High SES B.C. and Middle SES Technology (50 per cent each) are the highest on mobility. High

SES Service (33 per cent) is moderate. Middle SES Service, Low SES Organization, Middle SES Organization, and High SES G.C. constitute the less mobile groups (between 17 and 11 per cent).

### *Sex Differences*

SES-wise sex differences are marked at low SES level (male: females being 13:3 per cent). At High and Middle SES levels the male-female ratios are not so significantly imbalanced. In general, males are higher than females on mobility at Middle and Low levels. The reverse holds true at High SES level. On the whole, males and females (21:19 per cent) do not differ on mobility in the sense of holding multiple jobs.

### **SUMMARY AND MAJOR CONCLUSIONS**

In the research investigation presented in this chapter, an attempt has been made to study a cross-section of male and female working population selected on purposive and accidental basis. The respondents were selected so as to fall in five of Anne Roe's eight occupational fields and six levels, later condensed into three viz; High, Middle and Low. The major objective of the study was to develop an understanding of some aspects of career development in India and to see how personal-social-educational dimensions were related to entry into specific careers and in bringing about continuity and stability in the career in the Indian situation. Correlates and processes related to career behaviour and development prior to entry into career and the occupational differences in career patterns as indicated by job mobility and stability and other adjustment aspects have been studied. Occupational grouping of the sample into five fields and socio-economic breakup into three levels was used to conduct analysis on different variables.

Findings have been presented in details under major variables in the preceding sections. It seems in order, however, to present a consolidated picture of the highlights. The investigation cannot be regarded as very conclusive but information generated has (i) heuristic value and (2) can facilitate formulation of career guidance strategies on an experimental basis.

### *Familial Factors and Career Choices*

1. In the accidental sample selected for the study the distribution of cases on the SES dimension is more or less unskewed though it is not precisely bell-shaped.
2. The number of respondents representing large families is significantly higher than that of small families.
3. SES is negatively related to family size i.e. High SES and small family size and Low SES and large family size go together.
4. Significant differences in occupational entry according to family size are found in all occupational groups at High SES level, but in only three out of five occupational groups at Middle and Low SES levels each.
5. Middle SES small families are highest of all sub-groups on entry into Business.
6. Middle SES large families are highest of all sub-groups on entry into Technology and General Cultural (GC) careers.
7. Low SES First Borns are highest of all sub-groups on entry into Organization.
8. Middle SES Later Borns are highest of all sub-groups on entry into Business.
9. Fathers of both males and females have shown similar preference for government and traditional job for their sons/daughters.
10. More fathers of males than females consider earnings/perks as important in career.
11. General Culture and Business group males are highest of all occupational groups on preference for earnings while among females only General Culture is high on this factor.
12. Earnings/perks have been attributed greater significance than job security by fathers of males as well as females but male and female groups varied significantly among themselves in the strength of this factor.
13. SES is directly related to preference for earnings.
14. At all the SES levels among males, fathers' neutral attitudes towards career choices have been significantly the highest, followed first by supportive and then non-supportive attitudes.

15. Males of all occupational groups except Service group are significantly higher on neutral attitudes, followed first by supportive and then non-supportive attitudes.
16. On supportive attitudes among fathers of males, maximum support is found in Service group, maximum neutral attitudes are characteristic of General Culture group and maximum non-supportive attitudes are characteristic of Technology group.
17. Among females, unlike males, SES differences are noted on the three categories of support-non-support dimension. Highest support is enjoyed by High SES group; highest neutrality prevails at low SES level.
18. Occupational group differences on support-non-support dimension exist. Service group is significantly the highest on support.
19. Females are, on the whole, higher on neutral attitudes of fathers than support or non-support.
20. On the whole, there are no sex differences on relative status on three categories of support-non-support dimension.

#### *Personal Factors in Pre-Entry Career Behaviour*

21. In general the incidence of professional/technical qualification is much higher at High and Middle SES level than at Low SES level but from High through Low SES there is a steady decline.
22. Service group is possessing professional qualifications at all three levels.
23. At Low SES level, G.C. group is the most qualified of all groups.
24. There are noticeable SES and occupational differences in preference for work-related values.
25. Males are higher than females on 'job stability' as a work-related value.
26. Females are higher than males on 'forward looking' and 'job change no problem' as a work-related value.
27. Male-female differences on work-values are influenced by SES.

*Post-Entry Career Adjustment*

28. High SES males are higher than Middle and Low SES males on consistency in educational plans and educational level attained.
29. High and Low SES females are higher than Middle SES females on consistency in educational plans and educational level attained.
30. Occupational differences in consistency in educational plans and educational level attained show a direct relationship with SES in the case of Service and Business but the opposite is true of Technology and General Culture.
31. Males and Females do not differ at various SES levels and on the whole on consistency between educational plans and educational level attained.
32. High SES males are higher than Middle and Low SES males on consistency between career plans and present occupation.
33. Low SES females are higher than High and Middle SES females on consistency between career plans and present occupation.
34. Direct relationship between SES and consistency between career plans and present occupation is established in the case of Service and Business males.
35. Four of the five occupational groups of males are considerably higher on consistency than inconsistency between initial career plans and present occupation.
36. Female sub-groups across occupations and across SES levels have not revealed any clear picture of consistency between career plans and present occupation.
37. Total samples of males and females do not differ on consistency between career plans and present occupation, though they have shown a variety of relationships at different SES levels.
38. Groups of males and females at various SES levels are more stable and less mobile.
39. Of all the occupational groups, only G.C. group has shown a rising trend of job changes with rising level of SES.

40. Females have not shown any consistent pattern of job stability/mobility across occupations and SES levels.
41. There are no SES differences, on the whole, in stability as measured by average duration on first job for those who have changed jobs.
42. There are no sex differences, on the whole, in stability as measured by average duration on first job for those who have changed jobs.
43. Noticeable differences are found between various sub-groups across occupations and across SES levels on stability on present job.
44. Over all, among males there are no differences in various occupational groups on stability on present job.
45. Females and males do not differ, on the whole, in their stability patterns as measured by relationship between first and present job.
46. Stability as measured by incidence of those who do not change job at all, is significantly higher in High and Low SES as compared to Middle SES among males.
47. Middle SES females are significantly higher than High SES females on the factor of 'no job change'.
48. Males and females, on the whole, do not differ significantly on the factor of 'no job change', though the latter is higher.
49. Service group of males is, on the whole, relatively lower than other groups on the factor of 'no job change'.
50. Service and G.C. groups of females are significantly higher than the remaining groups on the factor of 'no job change'.
51. Number of both males and females holding multiple jobs is significantly lesser than those holding a single job.
52. There are no sex differences, on the whole, in the incidence holding multiple jobs.
53. Males and females in Service, Organization, and Technology are alike in holding multiple jobs.
54. Females of B.C. group and males of G.C. group are significantly higher than their counterparts in incidence of holding multiple jobs.
55. Low SES females are extremely low on multiple jobs.

## Chapter 9

# CAREER DEVELOPMENT OF WOMEN

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*Archna Shukla*

One of the major areas of interest to career psychologists during the recent times has been the exposition and prediction of patterns of career choice and development of women as a group. For many decades now, scholars from a range of academic disciplines including psychology, sociology, education, labour relations, management, economics, and marriage and family living have contributed to the theoretical and empirical growth of career theory. Interest in the career behaviour of women is, however, a much more recent phenomenon even in the west dating back only to the mid-sixties. Indian evidence on women's career behaviour is meagre, sporadic, and not at all aimed at theory building. There exists no comprehensive and detailed review of the processes and outcomes of women's career development covering the entire life span from initial career decisions through occupational entry to adjustment years. Also, because research and theories have focussed primarily on male career development, they have until recently neglected the possible differential influence of major explanatory variables on the career choice of women versus those of men or the unique variables related to women's career development.

### *Career Development Theories with Emphasis on Women*

Reviewing the western literature on occupational choice, Brown (1984, 1990) found that not until 1975 did women's career development in the currently accepted view as a life long process,

began to be studied extensively. A review of the literature published in 1970, Brown observed, includes only a handful of studies with women as subjects. Super (1957) and Farmer (1978) have emphasized the need for career development theories free of gender-role stereotyping. Recently, Osipow (1983) commented that the career development of women has as yet received only cursory attention by career development theorists.

Many of the numerous theories of career development postulated over the past few decades such as trait-factor theory, need theories, self-concept theories, etc. have only incidentally covered issues related to career development of women. Some other theorists have laid due emphasis on these issues. An attempt is made here to identify major ideas contained in these theories and to see if some of these theories could be stretched a little to achieve relevance in the context of women's career development.

1. *Trait-Factor Theory* (Parsons, 1909; Williamson, 1965), though conservative in format, clearly discounts gender differences. This theory is based on the assumption that each person (regardless of sex) possesses a uniquely organized pattern of personal traits (interests, abilities, and personality characteristics) that are fairly stable and seldom change after late adolescence. These traits can be identified through objective means, usually psychological tests or inventories, and then profiled to represent the individual's potential. Occupations can also be profiled by analyzing them in terms of the amount of various individual traits they require. When one profile is matched to the other, the probable degree of fit between person and job can be identified.

However, some limitations of the theory in the context of gender-relevance come into the limelight when on survey one finds that the tools of measurement which are very basic to this approach are suffering from gender-bias.

2. *Chusmir's (1983)* description of personality characteristics of career women identifies characteristics and background traits of women in non-traditional vocations and suggests that women in non-traditional occupations have personality characteristics usually attributed to men. Motivational

characteristics of women who choose non-traditional occupations are also similar to those attributed to men. Chusmir suggests that personality and motivational traits of women who choose non-traditional occupations are formed by the time they are teenagers. Clearly, Chusmir's research focusses upon the importance of female's early developmental patterns and suggests that intervention strategies designed to expand occupational choices for girls should be introduced during elementary school years.

3. *Roe (1957) and Roe & Lunneborg (1990)* theorized and researched about personality development as it is influenced by early parent-child relationships. Basing her theory upon Maslow's ideas of the integrated unity of the individual as a bond of interacting levels of needs, Roe specifically postulated three psychological climates in the home that are a function of parent-child relations (1) emotional concentration on the child as over-protecting or over-demanding, (2) avoidance of the child as neglecting or rejecting, and (3) acceptance of the child as casual or loving. In so far as gender-role-stereotyping influences the parental attitudes towards young girls in their years of growing up, it is detrimental to their personal-social and emotional development, and may give rise to an unhealthy concept of themselves as future workers.

Roe's theory allows an integrative role to the job function and relates career choice to the structure of the personality. Roe's insights help the counsellor to better understand the variety of factors that may play a part in women's career decisions.

4. *Holland's (1973)* conceptualization of person-situation correspondence focusses primarily upon vocational choice, stability, and achievement as consequences. In focussing upon the person's development of interests on social role stereotypes which are gender-based even today, Holland is not able to accommodate women's career development in his simple theoretical structure.
5. *Ginzberg (1966)*, in describing the life styles of educated women, has delineated four styles which are: (i) the individualistic type indicating a striving for autonomy with an

emphasis on self-direction and self-determination; (2) the influential type whose major drive is to influence people and events; (3) the supportive type whose lives are geared to helping and supporting others; and (4) the communal type whose time and energies are directed toward community development.

On the basis of value-orientation, Ginzberg categorized women into: (1) Traditional: home-maker oriented; (2) Transitional: more emphasis upon home than job; and (3) Innovative: giving equal emphasis to job and home or being predominantly career oriented.

These dimensions represent realistic life styles found among today's working women. The addition of a career-oriented dimension, that is, one in which the highest priority is given to the development of a career, points towards the possibility of a life style which could be more prevalent in future. It may, however, be difficult for many women to move toward the innovative dimension, primarily because of attitudinal barriers. Some women may be reluctant to become more career-oriented for fear of losing the stereotypical female identity, so readily accepted and desired by most societies. For many, the loss of this identity is indeed threatening and deters a serious focus on career development.

6. *Super's (1957) contribution to career development theory for women comes in two ways: one in his outline of Career Patterns (discussed under "Career Patterns" in this volume) and the other in his Life-Stage theory. The women's career patterns were later examined empirically for Mulvey (1963) and Vetter (1973) and they found support. The concept of psychological life stages which Super adopted from Buehler's (1933) formulation was based on data obtained on both sexes. The task formulation later made by Havighurst (1953, 1964) also viewed stages and tasks as essentially similar. The differences, according to Super (1990), are those of degree, not of kind, and are associated with child-bearing and child-rearing and with sex-role-stereotyping. Super further holds that on development of self concept, in theory, there are no sex differences. Empirically, Super quotes Kidd (1988) saying that both sexes appear to make decisions on the basis of their self-*

concepts and the concepts of the circumstances in which they live.

7. *Sanguiliano's (1978)* emphasis on critical life events that shape women's life patterns emphasizes the theme of different and special needs of women. Although she agrees that women do follow a serial life pattern, there are unique times of hibernation, renewal, postponement, and actualization. She contends that life-stage theories of Erikson (1950), Havighurst (1953), Kohlberg (1973), and Levinson et al (1978) have significant shortcomings in describing the development of women. Stage theorists do not account for the unexpected critical events and the myriad of unusual influences that shape feminine life patterns. Sanguiliano suggests that a woman's life cycle does not follow a rigid progression of developmental tasks but is similar to a sine curve representing the impact of unique experiences and critical events.

According to Sanguiliano, the formulation of self-identity is one of the fundamental differences between the developmental patterns of men and women. Women's self-identification is significantly delayed because of the conflicting expectations ascribed to feminine identity. Men learn their masculinity early and are better prepared to adapt to changes, but women do not have clearly defined boundaries and images of appropriate gender-linked roles. Men are reinforced in their efforts to attain clearly defined masculine roles, while women depend upon loosely defined feminine roles and have few support systems.

Sanguiliano's main argument is that women's individual life patterns require special consideration. Attention should focus on unique paths women take to break away from gender-role-stereotyping. Individual progress toward self-identity is germane to Sanguiliano's approach to determining counselling components for women.

8. *Psathas's (1968)* identification of factors related to women's occupational choices suggested that occupational choices for women are greatly influenced by home and family responsibilities. He also suggests that one's social class plus attitudes generated by marriage, financial resources, educational level, and general cultural values of past and immediate families are major determinants influencing

occupational choice. He emphasized that women's occupational choices are not made independently of other variables in our society. He underscored the point that women do indeed have special needs that must be addressed in career-counselling programs.

9. Zytowski's (1969) patterns of women's vocational participation are denoted as mild vocational, moderate, and unusual vocational. These patterns closely follow the life-style dimensions developed by Ginzberg, which are more occupationally oriented. For Zytowski, the modal life role for women in most societies is that of homemaker. Through vocational participation, a woman may change her life-style. The theory also suggests that patterns of vocational participation for women are determined by the age at entry, the length of time the woman works, and the type of work undertaken. Further, determinants of vocational patterns for women are individual motivation, ability, and environmental circumstances. Of significance to counselling is the observation that women do differ in their career development and have special needs to be included in career development programmes.
10. In recent literature, Hackett and Betz (1981) have provided an explanation of women's career development based on Bandura's (1977) self-efficacy theory, which is concerned with one's beliefs that a given task or behaviour can be successfully performed. Accordingly "people avoid activities that they believe exceed their coping capabilities, but they undertake and perform assuredly those that they judge themselves capable of managing" (Bandura, 1982). In applying self-efficacy theory to career behaviour, Hackett and Betz (1981) state, "If individuals lack expectations of personal efficacy in one or more career-related behavioural domains, behaviour critical to effective and satisfying choices, plans, and achievements are less likely to be initiated and, even if initiated, less likely to be sustained when obstacles and negative experiences are countered". They further believe that the limited position of women in the labour force is due to a lack of strong career-related personal efficacy beliefs. In

addition, women may be deterred in their efforts towards acquiring a sense of personal efficacy due to the expectations of outcomes of their efforts e.g. a woman may be quite confident of her ability to perform as a company secretary, but she may believe that she will not be taken for the job, due to some of her past experiences or the influence of occupational stereotypes. According to Bandura (1977, 1986) self-efficacy expectations vary on three dimensions: (1) level — i.e., the degree of difficulty of the task the individual feels capable of performing; (2) strength — i.e., the confidence the person has in his or her estimates; and (3) generality — i.e., the range of situations in which the person feels self-efficacious. Hackett and Betz (1981) have suggested that female socialization is less likely than male socialization to facilitate the development of expectations of self-efficacy with regard to educational and occupational pursuits.

11. *Gottfredson's (1981)* developmental theory of occupational aspirations attempts to explain sex differences along with other group differences such as race, social class, etc. She gave a number of basic tenets to explain career aspirations and career selection. People differentiate occupations along dimensions of sex type, level of work, and field of work. They desire to enter occupations which are in line with their self-concepts. Gender is one of the many vocationally relevant elements of the self-concepts. Gottfredson contends that the child develops a gender self-concept between ages 6-8 years, and during the course of development, gender plays a vital role in eliminating occupations that are considered unsuitable by the individual. Given a choice between occupation of interest and occupation which is "sex-appropriate", the latter will be chosen. Woman's entry into lower status lower-level positions is thus explained through the compatibility of the occupation with the self-concept.
12. *Astin (1984)* constructed a need-based socio-psychological model to adequately describe the career-choice process of women. Her theory contains four constructs: motivation, expectations, sex-role socialization, and structure of

opportunity. The motivation to satisfy primary needs through work and intrinsically oriented work needs are common to men and women. Expectations from work, she says, differ for men and women due to differentiated sex-role socialization process and the structure of opportunity. The opportunity structure, too, is affected by women's aspirations as contended by Astin which she expresses as: "The socialization process probably sets limits to changes in the structure of opportunity whereas the structure of opportunity ultimately influences the values that are transmitted through the socialization process".

#### *A Synthesis of Various Theories*

The general developmental patterns of women suggests that a woman's life-cycle does not follow life-stage models developed from the studies of men. Compared with men, women's self-identify is slower to develop, primarily as a result of gender-role stereotyping. Most of the career choice and development theories have inadequately explained career behaviour of girls and women. Brooks (1984) holds that "existing theories were formulated primarily to explain the career development of men, and since women's career development is different from men's, existing theories are inadequate". "A theory of career behaviour should be able to explain gender differences" (Brooks, 1990). Problems related to women's career decision-making are closely associated with role confusion and the lack of role models, and support systems.

In each of the career development theories of women described above, emphasis is placed upon the women's role as homemaker, and the special needs of women interested in developing careers. Women's work is perceived more in terms of "holding jobs" rather than "building careers" (Vetter, 1973) Women who give at least equal emphasis to job and home are considered innovative (Ginzberg, 1966) and unusual (Zytowaski, 1969), because their life style is different from that of the typical homemaker. However, the number of women in the work force is steadily increasing. With the passage of time the terms used by these theorists to describe women's career patterns as "unusual" or "innovative" etc. will change their connotation to accept non-traditional

working women as part of the mainstream of workers. As of today, women are yet to be liberated from gender-role-stereotyping.

### *Women's Career Development : Pertinent Issues*

Research on women and work demonstrates that the questions generally asked in this connection are why do women work? Do they work for the same reasons as men? Is employment injurious to their psychological or physical well being? What happens to their families when they work? Manifest in such questions is the implicit assumption that women who work are engaging in behaviours that are outside the 'gender-norm'.

In general, variables influencing girls and women's work participation are many. These factors have been classified as enabling, facilitating, and precipitating (Sobol, 1963); cultural, situational, and chance elements of environment (Psathas, 1968); conflicting concerns about marriage and career (Mathews and Tiedeman, 1964); internal or self concept barriers (Farmer, 1978); internal and psychological, and external and sociological constraints (Harmon, 1977); traditional female socialization, sex-typing of occupations, marriage vs. occupational success, etc. (Falk and Cosby 1978); individual factors like abilities, interests, attitudes, social factors, and moderating factors e.g. fear of success, role conflict etc. (Osipow, 1975); background variables, personal psychological variables, and environmental variables (Farmer, 1978) etc. Similar to the Farmer's variables are Fassinger's (1985, 1987) career-choice realism variables. The hypothesis is that ability, instrumentality, feminist orientation influence career orientation and mathematics orientation. The latter two, in turn, influence career choice.

Some of the specific concerns are discussed below:

*1. Discrimination in Employment Situation:* The career adjustment process begins with the entry of the individual into the world of work. Thus, the first goal of work is to secure an initial position which is congruent with one's interests, abilities, education and training. This process, traditionally an anxiety provoking experience, particularly in difficult economic periods, is made worse for women who must deal with issues and problems unlikely to be faced by their male

counterparts. Discrimination in selection operates as a barrier to women at this most fundamental level of career selection and adjustment.

Another serious problem facing working women is the persistence of the large gap in earnings between men and women. Despite decades of change, total earnings of women the world over continue to be lesser than those of men. Thus, despite the fact that women are putting in more working hours than men, majority of persons with income below the poverty level are women. Two of the major reasons for the wage gaps are sex-based wage discrimination and occupational sex-segregation. Further, women professionals are concentrated in professions of lower pay and status than the male-dominated professions. The vast majority of nurses, elementary school teachers, librarians, and social workers are females, whereas the majority of physicians, lawyers, scientists, and engineers are males. Women are poorly represented in the sciences and engineering. Even within the same occupational field, women tend to be concentrated at lower levels, men predominate at the upper levels. The career aspirations of women, too, continue to focus on stereotypically female occupations.

*2. Occupational Sex-Segregation:* A sexually differentiated labour market is found to be operating particularly in the private sector. On an average, women have lower positions than men, are paid less in the same position, and are expected to perform worse under challenging conditions. Studies also indicate that careers of men and women may proceed quite differently from each other. Women who do not expect organizational success (whether due to discrimination, differential socialization, or other factors) might take their jobs more casually, entering and leaving them more readily than men, and ignoring opportunities for professional training. Similarly, an employer who expects that women are poorly trained, poorly motivated, unreliable, or incapable or who feel that others in powerful positions have these beliefs, will tend to allocate women to positions of lower responsibility and deny them chances for the most meaningful experiences and training.

Thus, these forces result in successful women being systematically delayed, relative to men, in the development of their careers. If the career development of successful personnel in an organization is found

to be toward higher positions, line operations, and increased professionalism, then women may be systematically found in lower positions, the less important staff-positions, and positions demanding a lower degree of professional commitments. Such a delay might become increasingly obvious when advancement in jobs is considered. Thus, earlier delays become progressively compounded, suggesting that women may be expected to reach the same position later in their careers than will men, but not keeping out of important positions entirely.

**3. Women's Changing Career Concerns and Issues:** Career counselling programmes for women in the past consisted of an exploration of the traditionally held working roles. The choices were so narrow as to include only such occupations as clerical, teaching, or nursing. One of the first questions asked was, "How would this fit into her spouse's occupational goals and family responsibilities?" The message to women was quite clear; they had but a few jobs to choose from and their careers were secondary to their husband's or their family obligations. Currently, career counsellors have found that women are rearranging their career and family priorities. Many women, today, are planning for a life long career in a wide range of occupations. A "Career first and marriage later", may be the new order of preferences for many women as they are looking beyond the traditional feminine roles. Often such women encounter a variety of barriers in the way of their career goals. Then, women who give their career development equal status with that of their spouse, may experience a variety of conflicts, dilemmas, and resistance and may find acceptance of their role personally challenging and lacking the support of the significant others in her life. There may even be resistance towards accepting the changing career priorities of women among counsellors who themselves may have been socialized in the traditional ways. In brief, there could possibly be resistance to the changing role of women in the work and family worlds from both sexes and at all levels of the social hierarchy.

**4. Psychological Factors in Career Development of Successful Women:** One of the primary psychological variables linked to career success is achievement motivation. This work, begun by McClelland,

Atkinson, and their colleagues was intended to explain stable tendencies in certain persons oriented toward striving for success in life. They suggested that people who are relatively high in achievement motivation tend to attempt tasks that appear moderately difficult to them, tend to be persistent in the face of difficulties they may encounter in their tasks, and tend, on the whole, to show evidence of good performance and achievement over a period of time.

Recently, it has been suggested that effective career striving on the part of achievement oriented persons must involve a good deal of long term planning. If a person's achievement motivation is to influence the quality of a particular performance, one must be aware of the relevance of that performance to long-term goals. This suggests that successful individuals should show a tendency to be highly aware of both future career paths and the instrumentality of particular courses of action for attaining the career advances. This also provides evidence of stability in their achievement strivings over a period of time.

Psychological variables have been relatively ignored in studying the career of successful women (Boardman et al, 1987). Tutek et al (1981) identified the motivational orientation styles of coping with stress and frustration and also compared the networks of family and peer support and the kinds of serendipity that may serve as turning points in successful women's lives. Successful women aged 40-55 years, who came from educationally and economically disadvantaged backgrounds were found to differ psychologically from equally successful women who grew up in more advantaged circumstances. Despite their different backgrounds, the women shared many personality characteristics. They were high in measures of need achievement, mature in their defences, and predominantly reward-oriented, inner-directed, and internal rather than external in their locus of control. Also, in contrast to men, they were more likely to report that their success had come at some cost, usually in the areas of family or personal relationships. Yet, they exhibited traits that have some association with psychological well being and coherence.

Because the need for affiliation and the need for power might be involved in the personal resources of successful women, it seems important to determine the relationship between these needs and paths of social mobility and career advancement.

Another factor in career decisions is the way in which the individual views potential costs or rewards. (Kelley, 1959) talks of two personal orientations that may be available in women particularly oriented toward the rewards they might obtain and relatively insensitive to the costs they might incur in the course of striving for those rewards. Such reward-oriented people are described as confident, powerful, and oriented to success. In contrast "cost-oriented" people are sensitive to the costs they suffer and are described as constricted, powerless and oriented toward the avoidance of failure. Thus, women who attain unusual career accomplishments would tend to see opportunities in situations and to take action despite possible costs involved. Successful women would reflect a predisposition toward seeing potential rewards rather than costs.

Locus of control and defences against stress have also been found to be important factors. Researchers relating locus of control to perceived outcomes have shown that individuals high in internal locus of control are better able to defer gratification for the promise of potentially larger reinforcements in the future.

Fitzgerald and Crites (1980) provide comprehensive evidence on the role of psychological variables like aptitudes, vocational interests, personality, and self-concept etc. Evidence on the relationship of aptitudes to women's career development has been inconsistent, as compared to that of men. In general the former's career attainments have been lesser than their ability and potential. In the matter of interests, Wagman (1966) found that career oriented girls scored higher on the lawyer, physician, and psychologist scales of SVIB, whereas home-making oriented girls scored higher on the housewife, home economics teacher, and dietician scales. A pattern of interest in culturally stereotyped "feminine" stop-gap occupations was observed in marriage-oriented subjects (Levitt, 1972). Tinsley and Faunce, (1980) also found stronger intellectual and occupational self-concepts among career oriented women. High self-esteem women (Stake, 1979) were found to be more consistent in their choices between home and career. Fitzgerald and Betz (1983) contend that women with a positive view of themselves are not only more likely to be career-oriented and innovative in their choices of careers but may also be more likely to

make actual choices consistent with their early aspirations, and those leading to consistent and manageable life styles.

*5. Career Paths vis-a-vis Gender:* Organizational theorists, while discussing career development, have taken mainly two options. One, which might be labeled the classic model of career patterns, is typified by the careers traditionally expected of successful males. Such a position ignores the influence of the unique social and family situations of women and also attaches little significance to demands on men external to the work environment. The other position is a 'neoclassic model' of organizational development according to which competing family demands and individual preferences may interact with organizational needs to affect careers. The model applies as well to women as to men. Nonetheless, women's careers are generally discussed only by limited exception to rules intended to apply to men's organizational career development.

From such a view point, women seem to be caught in an unfavourable spiral. As compared to men, women have little access to resources and live in environments that encourage affiliation rather than achievement and create fewer pressures on women to succeed. Internalization of such attitudes is so vital that when women are successful, they fear that their success may annoy others. There is evidence to support the idea that women themselves fear the success label. Horner (1970) writes that success over a male can provoke anxieties in women such as fear of loss of femininity and self-esteem. Then, in the work context women are less likely to have a supportive mentor and are cut-off from the flow of information because of their restricted inter-personal interactions, particularly with male colleagues. Thus, women are less expected to succeed and they confirm the expectations by seldom succeeding.

*6. Availability of Role Models and Career Behaviour of Women:* An important consideration in their own role identification and learning by young people is the accessibility of role models. It is easily apparent that the number and variety of role models accessible to boys and young men are much greater than those available to girls and young

women. College girls, for instance, are relatively uninformed about the world of business and industry, the types of work performed as well as the abilities required to accomplish various jobs.

Literature regarding the selection of career role models suggests that females are likely to report both male and female models due to lack of many female role models. Choice of a pioneer occupation is related to having a male model. Farmer (1980) found that the support of teachers, parents, and peers was essential to the career motivation of tenth grade girls. In India, sex-role orientation and career-orientation on both traditional and non-traditional lines has been found to be influenced positively by educated and working mothers in professional and non-professional careers (Dixit and Vishnoi, 1980; Vijaylakshmi 1985; Ghadially & Kazi, 1979). Women in professional courses had a more liberal perception of sex-roles. Educated women from nuclear families have also been seen to exert a positive influence in this regard. Promila Kapur (1982), in some of the case studies she conducted on adolescent girls, reported some conflicting situations in the case of parents who were more conventional in their thinking. Such cases are also reported where parents imposed their overambitious plans for their daughters on them, much against their wishes.

**7. Role Conflicts:** More and more women in India and abroad are now successfully pushing open the doors of organizations. They are equipped with the necessary skills and qualifications to take up a variety of jobs, are able to satisfy stern selection panels and, moreover, are able to make their presence felt by making significant contributions through the unique perspectives they lend to the organisations they join.

In short, the fact that women are capable of entering the managerial cadres does not need to be proven any more. It is important, therefore, that progressive organisations and especially those with equal employment philosophies, shift their focus to the post-selection area. Once these competent women assume positions of responsibility, the organization's focus must shift to assisting them and enabling them for being effective in their jobs.

There could exist a conflict between the professional role as a member of the organization, as a subordinate or as a boss, and the personal role as a spouse and a mother. This role conflict at times becomes so intense, especially at certain stages in the women's life that it begins to make not just physical but psychological impact. The end result is that performance at work or home 'or both is adversely affected.

At work, some women may try to give their best, willingly accommodating late hours and working weekends and maintain the required professional decorum, punctuality, and attendance. On the home front with their level of achievement orientation, success is equally critical. Because of their distinct upbringing and corresponding traditional value systems, they must also marry and raise children and appear less successful and less achievement oriented than their male counterparts. Caught in such a double bind, women must be offered the facilities that they require and also the special assistance and guidance to successfully resolve the dilemmas. Such provisions, together with accompanying attitude changes are essential to enable women cope with their multiple role demands.

#### *Towards Formulating a Model of Women's Career Development*

Based upon various theories and empirical findings presented in the previous sections, an attempt is made towards formulating an exploratory ecological model of women's career development. The model is presented in Fig. 9.1. The model is exploratory in the sense that contributions of various factors within a block, the inter-relationship between the blocks, and their sequencing over time are not, as yet, fully understood. This is so because some parts of the model are relatively more researched while others are not. However, the arrows connecting the blocks do point towards possible relationships that may exist. The model is ecological because it is formulated according to the 'person-environment interaction' theme. The blocks arranged vertically on the left hand outline the important environmental forces that may have impact upon different stages in the context of women's career development. The blocks arranged diagonally on the right hand mark critical developmental stages in women's career and life patterns.

One common theme that runs through the vertically arranged blocks is their gender anchoring with respect to attitudes and behaviours. From the early psycho-social climate at home through educational system and job market to institutions of marriage and family — all are characterized by gender-role-stereotyping. Numerous studies have shown that parents' reaction to their newborn child is influenced by the child's sex; in schools, teachers react differently to boys and girls and expect different behaviour from them; job market is characterized by sex segregation; behaviour of the two sexes is interpreted differently; and the institution of marriage and family is given priority in the case of females more than males. If women's career development is to be facilitated, various institutional and systemic changes will have to be brought about with respect to these to enable them to offer equal opportunities for the development of the full potential of both the sexes.

Being influenced by these environmental forces and at times influencing them in turn, women's career development progresses through various stages shown by the diagonally arranged blocks in the model. The seeds of career orientation are sown in early childhood through parent-child interaction at home, when favourable. The psycho-social climate at home, and at school leads to the development of cognitive competencies, emotional maturity, interpersonal skills and confidence for experimenting with oneself (Block 1, right hand) which, in turn, form the basis for the development of career self concept and career maturity (Block 2, right hand). These, together with the prevailing conditions in the job market (Block 3, left hand) and marriage and motherhood become the decisive forces which regulate women's entry into occupations (Block 3, right-hand) and subsequently the manner in which work and family are integrated in women's lives (Block 4, right hand). The human outputs that result in the process of development vary from positive (Block 1, extreme right) — such as job satisfaction, marriage satisfaction, psychological well being etc. to negative (Block 2, extreme right) — such as work overload, inter-role conflict, dilemmas, tensions and conflicts, and psychiatric morbidity.

The developmental stages in the model are in accordance with Super's stages of crystallization, specification, implementation,

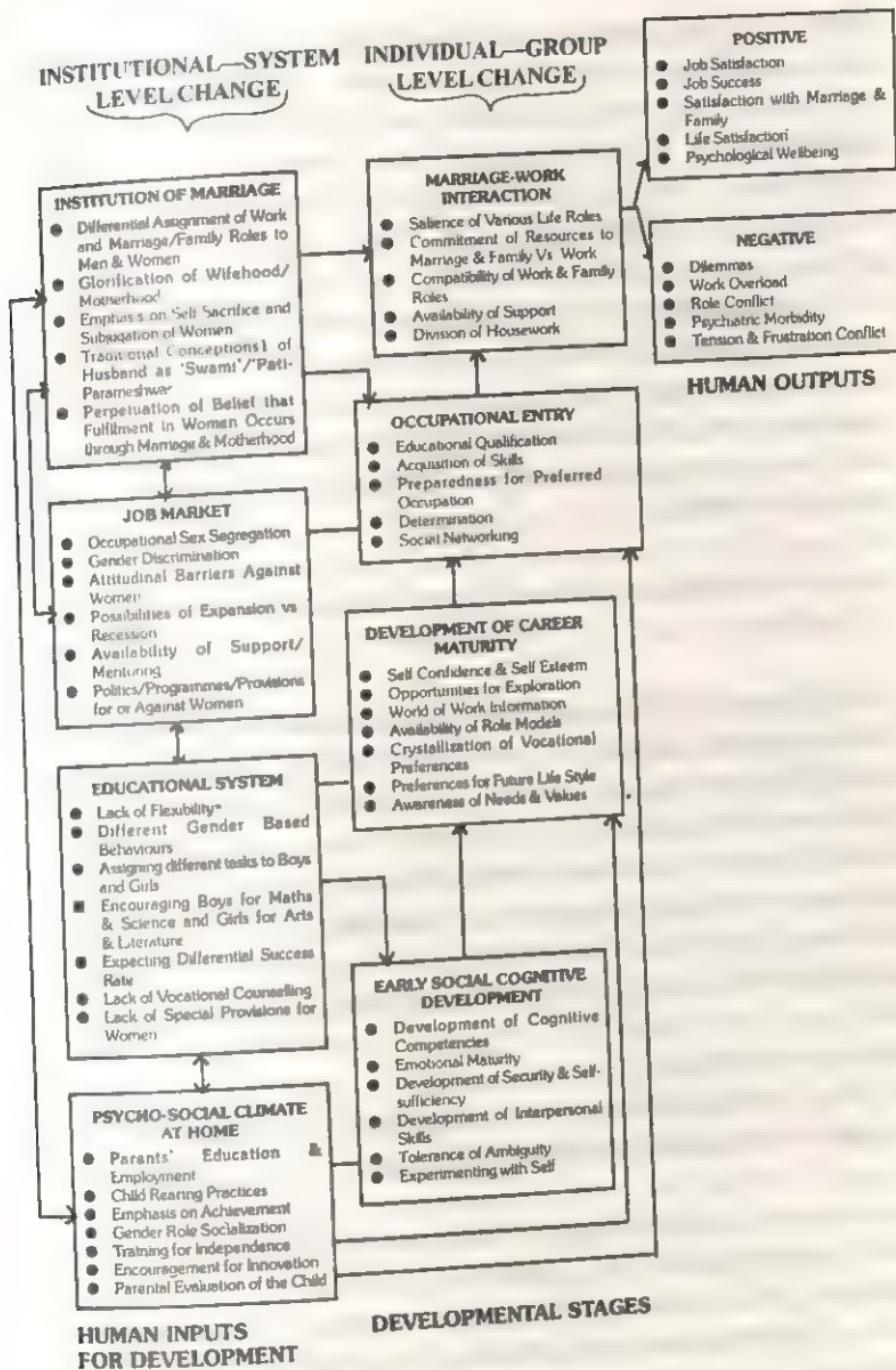


Figure 9.1  
An Exploratory Ecological Model of Career Development of Women

stabilization, and consolidation. The model also incorporates Roe's emphasis on psycho-social climate at home, Ginzberg's concept of value-orientations based on needs and aspirations, Sanguiliano's pointer towards critical life events which either delay or facilitate actualization of women's career potential, and Psathas's and Zytowski's identification of determinants that shape women's occupational participation.

Thus, the utility of this model lies in its integrative approach and explanatory value. Besides, the model also suggests the types of intervention strategies that are required for bringing about change. However, much empirical and evaluation research is needed before such interventions are designed and sharpened to enhance women's career development.

### *Career Development of Girls and Women : Possibilities for Interventions*

**1. Recognizing Women's Needs:** As a pre-requisite to designing effective helping services and other interventions, needs of various groups of women have to be identified. Women, in fact, are in need of career counselling throughout their life span. As young girls, they require it for making adequate educational decisions and planning, and developing a positive occupational self-concept; as adults they require it for resolving various dilemmas and achieving career adjustment; and as aging women, they require it for encouraging and socializing their young ones, particularly their daughters, in sex-neutral ways towards achievement strivings.

Thus, designing effective and appropriate interventions calls for recognition of women's needs of a large variety.

**2. Restructuring the Educational System:** Our educational system is still mostly geared to a continuous, full-time experience. Little adaptation in the system has been made to meet the individualized needs of aspiring girls and women. Too often, we expect each individual to adjust somehow to the system without requiring the system to serve the individual. In a publicly supported educational

system, equal access to all for whatever education can be attained, must be a constant goal. If this is believed, then drastic changes in educational accessibility and opportunity must be made. The educational system, itself, must become adaptive to new human requirements. The most pertinent requirement of enabling and empowering women has been recently incorporated in our National Policy of Education (NPE 1986, 1992), which, through its emphasis on 'Education for Equality' aims at gearing the national educational system to play a positive interventionist role in the empowerment of women, contributes towards development of new values through redesigned curricula and textbooks, promotes women's studies as part of various courses, and widens the access of women in programmes of vocational, technical, and professional education. Among the specific parameters of empowerment are: building a positive self-image and self-confidence; developing ability to think critically; fostering decision-making and action, and providing wherewithal for economic independence.

The women's studies centres have been started in 22 universities. These centres have been conducting programmes under four dimensions of teaching, research, training, and extension. This national women's studies movement has its role as an interdisciplinary instrument of transformation to sensitize both men and women to recognize and acknowledge the multi-dimensional roles of women, the pursuit of women's rights as human rights, and develop alternative concepts, approaches, pedagogy and strategies for development (Swarup, 1993).

Another innovation in higher education could be the adoption of courses designed to relate directly to women's role in Indian society in order to remove structural, cultural, and attitudinal causes of gender discrimination. Swarup (1993) stresses the need to have a formal curriculum at undergraduate level in all universities and professional and technical institutions which have a potential for bringing about changes in attitudes, increase in sensitivity to women's needs, and heightened interest in the adoption of a new life style based on true equality between the sexes.

**3. Information About the World of Work:** Availability of career information is necessary to encourage women consider a wide variety of career options. Women who have the interest and the capability to pursue assertive, innovative, and demanding careers need direction and encouragement as much as women who are interested in skilled labour and technical occupations, or those who, at the mid-stage of life wish to join some income generating activity.

Moreover, the environment at factories, offices, institutes and the varied work settings is relatively unknown to women who have primarily been busy caring for their children and homemaking. Programmes that inform women about what typically can be expected in work settings are needed to inform them about the kind of preparations that would be required to enter the paid employment. Employee expectations, effective communication with peers and supervisors, promotional policies, and authority relationships are issues regarding which clarification and careful preparations are required in advance.

**4. Assistance in Finding Ways to Resolve Dilemmas of Pursuing Dual Roles:** Changes in the socio-political-economic conditions have greatly contributed to an increase in the number of married women who are or wish to be employed full-time. Some women may enter employment for financial necessity. For many families, for example, it may be essential that both spouses work in order to fulfil the subsistence requirements. For other women, employment may have more varied functions. Besides financial rewards, employment could offer social network opportunities for self-expression and development of self-esteem and a positive self-concept. Today many educated financially well-off women work more for psychological gains than for financial gains. In such families work is a joint venture. Whatever be the reason for work, greater number of women are assuming dual roles of homemaker and worker. Though dual roles of the working women have found greater acceptance, personal contradictions that need clarification persist in the working women's life. Today's women need to more fully value an independent life style and clarify their self doubts, if any. More specifically, counselling should assist them in

identifying their abilities and skills, in locating career opportunities, and in coping with the multiple demands once they have entered the labour market, besides being responsible for homemaking and child rearing.

Women also experience internal restrictions and attitudinal barriers when considering full-time careers, particularly in the non-traditional spheres. To put oneself into an occupational environment dominated by men, may indeed be a difficult task for many women who grew up under the influence of traditional gender roles and stereotyping of occupations. Women who have only considered traditional jobs find the contemplation of many other careers alien to them.

*5. Leadership Roles:* Cultural heritage does not encourage women to excel in business related occupations because it is the men who are perceived as leaders, and better able to carry out such demanding tasks. Women who take up leadership roles are often regarded merely as "tokens" and their abilities and skills are questioned even by their colleagues. Women, thus, need more information, experience, access to formal and informal structures, and exposure to feminine leadership role models together with a greater degree of motivation to attain leadership positions. In essence, women are in search of sanction and encouragement from society to achieve in the world of work. Farmer (1978b) has earlier suggested that cultivating a society that is free of gender-role stereotyping, will go a long way to encourage women for greater achievements in the work sphere.

*6. Need for Organizational Innovations:* Many authors have dealt with the physical differences between the male and the female. The most important in a discussion of sex roles is the reproductive function. This function is still very much a reality in our society and must be given due consideration since it involves not only the period of pregnancy and birth, but also the corresponding responsibility of rearing the young. If society deems, however, that women need to make a greater contribution outside the home, institutional supports for pregnancy leave, nursery schools, and day care centres are to be provided. Other organizational innovations could also be made as is

recently done in the west, involving the provisions of flexitime, flexiplace, etc.

**7. Legal Requirements:** Women need to be made aware of laws that prohibit discrimination in employment on the basis of gender, payment for work, and educational opportunities. This awareness would go a long way in assisting women in attaining access to resources and equal opportunity in important areas.

**8. Removing Myths about Women:** Some gender differences represent beliefs that have been stable over time and held by a large proportion of the population. In particular, men have been believed to be high in 'masculine traits' such as independence, aggressiveness, and dominance, and women high in 'feminine traits' such as nurturance, gentleness, sensitiveness, etc. Women are regarded as the 'social specialists' or more expressive members in task-oriented groups and men as the 'task-specialists' or more instrumental group members. Thus a wide variety of myths are held by people in general regarding women's role, women's potential, and women's work.

Counsellors themselves must be acutely sensitive to the biases they hold as individuals which might be easily transferred to the client. Koontz (1970) lists some of these biases: Women's place is in the home; women are inclined to be passive and are therefore suited for routine repetitive work; women are not as intelligent as men and cannot think abstractly or reason logically; women have a natural preference for service-oriented positions such as nursing; children of working mothers grow up disturbed and neurotic; and women must choose between home and job — they cannot do both well.

In addition, many counsellors and educators believe there are additional myths which are held by employers and which operate to the disadvantage of women. Some of these are: Women are not seriously attached to the labour force, they work only for pin-money, women are absent because of various reasons more than male workers and consequently cost the employer more; women do not work as long or as regularly as their male co-workers; their training is costly and largely wasted; women take jobs away from men; women do not want added

responsibilities on the job; and men do not like to work for women supervisors who are increasing in number due to the success and satisfaction from their paid work.

Powell (1988) in his book 'Women and Men in organizations' quotes Natasha Josefowitz's succinct account of "Impressions from an office", in which gender stereotypes of women and men, in office environments are illustrated.

It is clearly suggested that the distinctions that are drawn are exaggerated, unnecessary, and misleading. Still, people frequently use gender stereotypes to evaluate their own capabilities and performance and those of others. Their response to co-workers are thus heavily influenced by the stereotypes that they employ to interpret the co-worker's behaviours.

However, like all men are not alike, all women too are not alike. Like many men, some women put their careers first. They are ready to make the same trade-offs traditionally made by the men who seek leadership positions. They make a career decision to put in extra hours, to make sacrifices in their personal lives, to make the most of every opportunity for professional development. For some women this decision may require that they remain single or at least childless, or if they do have children, they have the support necessary to raise children and be satisfied with the arrangements. The automatic association of all women with babies and, hence, low work involvement is clearly unjustified.

The secret to dealing with such women is to recognize them early, accept them, and clear artificial barriers from their path to the top. After all, we have cases of women in our country who are at their best in management, journalism, protective services, statesmanship, etc. Besides, such career committed women have another value that men and other women lack. They can act as role models and mentors to younger upcoming women. Since upwardly mobile career committed women still have few role models for inspiration, a company with women in its top echelon has a significant advantage in the competition for executive talents. Such career committed women are not just like men or masculine but they are just like the best men in the organization. And since best people are in short supply, gender cannot

be allowed to matter. It is clearly counter-productive to disparage in a woman with executive talent the very qualities that are most critical to any organization.

Clearing a path to the top for career committed women is shown by Powell (1988) to have four requirements.

1. Identify them early;
2. Recognize that the work environment, because of being unfamiliar, may be more difficult and stressful for them, than for their male peers; as women are mostly a minority, often the only woman;
3. Give them the same opportunity that are given to talented men to grow and develop and contribute to company profitability. Give them client and customer responsibility. Expect them to travel and relocate to make the same commitment in the company as men aspiring to leadership positions;
4. Accept them as valued members of the management team. Include them in every kind of communication, and listen to them.

#### *Career Counselling Programmes in Schools and Universities*

For the typical home bound girls believing in traditional feminine roles of homemaking and child-rearing, the need for counselling programmes may be even greater. For these girls, the consideration of a life long career is entirely new and conflicts with concepts developed in early socialization could be considerable. The rapidly changing values and attitudes regarding the traditional sex-roles suggest that a number of other factors influence the type and magnitude of critical career decisions currently being made by women. For example, the decline of motherhood as a full-time occupation is becoming increasingly prevalent in our society. As a result, women feel more free today to consider full-time careers outside the home. Besides, the financial needs of families have made it necessary for both husbands and wives to work. Also, jobs which were traditionally held by men are more accessible to women today, because of the changing social-political scenario.

Therefore, counsellors and other concerned professionals must make efforts for designing special career counselling programmes for young women, who, being at critical stages of development, are required to make important curriculum related decisions and other adult and aging women who have or could be encouraged to have, strong commitment for engaging in gainful activities.

To end, in this chapter an attempt has been made to give a comprehensive view of the theories and issues related to career development of girls and women. Beginning with the stand taken by the most conventional trait-factor theory, the gender-bias vs. gender neutrality of a number of other approaches has been highlighted. Emphasis is placed on women's role as home-maker and the special needs of women interested in developing careers. A distinction is drawn between 'holding jobs' and 'building careers'. Some specific issues in relation to women's career development such as discriminatory practices in various situations, role of psychological factors in career development of successful women, role conflicts etc. have been taken up. A model of women's career development which is 'exploratory' and 'ecological' in nature has been suggested. Finally, some possible interventions to enhance women's career development such as innovating on the educational and organizational systems, assisting in resolving dual role dilemmas, removal of myths and provision of career counselling facilities have been discussed.

## Chapter 10

# INDUSTRIAL AND OCCUPATIONAL STRUCTURE OF OUR COUNTRY

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*J.S. Gulati*

Work has come to occupy a pivotal role in the lives of most individuals. Almost all adults engage in some kind of work or the other, in some situation or the other. They work in offices, factories, shops; also in their homes, looking after their families. In fact, work has become, in most cases, the sole rationale for pursuing educational, professional, or vocational courses. Knowledge of work hierarchy and the industrial and occupational structures is imperative for efficient functioning of career counsellors in their dealings with clients.

The organisation of work consists of a hierarchy, as also combination of work units. At the base are elements of a task. A number of elements constitute a Task. Tasks may form parts of major or minor duties, constituting a Position which a single worker holds performing those specified duties. The work hierarchy of a group of workers consists of (i) jobs (ii) occupations, and (iii) occupational families.

The *World of Work* has two dimensions, industrial and occupational. Both have been structurally organised into a hierarchical system. At the international level, the former system has been structured by United Nations Organisation (Statistical Office), New York, USA, and the latter by the International Labour Office (Bureau of Statistics), Geneva (Switzerland).

*Industrial and Occupational Classifications*

Both industrial and occupational structures called "Classifications" are used in the classification (grouping) of labour force e.g. in population census, manpower planning, etc.; yet one cannot take the place of the other.

Individuals in the labour force can be classified by a number of different characteristics. The characteristics of principal importance in studying the labour/employment market are : the *economic activity* in which it is performed (i.e. goods produced or services rendered); *status in employment* (e.g. whether the individual worker is an employer or an employee); and the *type of work* performed. Both classifications also encompass employment/unemployment skills of worker and employment/unemployment statistics. The industrial classification is based on the economic activity in which an establishment (also an individual) is engaged, while occupational classification is based on the work performed on the job.

An industrial classification system defines economic activities according to types of goods produced or services rendered. An occupational classification system defines, describes, and classifies the work performed by individuals in occupations, based on similarity of work performed.

*Linkage of Industrial and Occupational Classifications:* Nevertheless, some occupations, classified in the occupational classification system, may happen to be linked with certain types of economic or industrial activities or may occur in certain industries only, e.g. miners, farmers, forestry workers, fishermen. Yet, many occupations may not be linked to any specific economic activity, but may occur in many different types of industries, e.g. a stenographer and a clerk may work in a bank, hotel, retail establishment, manufacturing concern or government office.

In actual practice, and quite often within an occupational classification, some industrial classification bias does come in. It is because some occupations, unique or exclusive to particular industries, have to be grouped/classified together because of (a) the environment in which the work is performed or (b) some other common factor or

similarities in the work performed on these occupations. A study of the industrial classification is, therefore, essential for identification of occupations and an understanding of the relationships of occupations within the industry.

Industries, as per industrial classifications are viewed in terms of the services they provide or goods they produce. Examples of services based industries are: maintaining, servicing, and repairing all types of machinery and equipment; providing transportation and communication services; manning and servicing utilities like water, electricity, gas; providing banking and insurance service; caring for the health and welfare of people; teaching in schools, colleges and universities, etc. Production industries are concerned with manufacturing of all sorts of articles and products; raising food crops; extracting minerals, constructing all types of buildings (houses, roads, bridges, irrigation, dams, airports, etc).

#### *International Industrial Classification*

Grouping (classification) of industries is based on the similarity of the types of products and services. At the international level the lead was taken by the United Nations Organisation (statistical office), which designed and compiled the classification of all kinds of economic activities in a 'system' which allowed for the classification of firms, establishments, and other producing units according to their major area of industrial activities.

The system (classification) consisted of a hierarchy of categories consisting of major divisions (one digit codes), divisions (two digit codes), major groups (three digit codes) and groups (four digit codes), also laying down general principles for classification and codification, and defining and describing various economic activities constituting the classification, viz., International Standard Industrial Classification of all Economic Activities (ISIC).

ISIC, thus provided a model for use in compiling and presenting data, according to kind of economic activity, in diverse fields, such as labour and employment, industrial production and distribution, finance, national income, prices, wages and salaries, tangible capital assets, the output and cost of production, profit and loss, financial assets and liabilities, etc. The classification allows for these and other data to be

compared and related to one another to facilitate comparability at both the national and international levels.

India, like any other country, has to interact with other countries at regional and international levels. Negotiations aimed at regional and international economic cooperation indicate interdependence of world economies, and the importance and need for statistical data collected, compiled, and presented in a way to facilitate regional and international comparability.

#### *National Industrial Classification of All Economic Activities, 1987*

The first National Industrial Classification (NIC) was compiled and issued by the Central Statistical Organisation (CSO) of the Government of India in 1970 (CSO, 1970) 'to provide a uniform framework for classifying data according to kind of economic activities in the fields of population, production, employment, national income, and other economic statistics'. In order to provide international comparability, NIC-70 was matched with the International Standard Industrial Classification-1968 (ISIC-68) issued by the United Nations Statistical Office (UNSO).

The revised edition of NIC-70 was issued in 1987 to take into account the changes having taken place in the structure and organisation of the industries since 1970 (CSO, 1987) simultaneously removing certain structural deficiencies.

*Structure of NIC-87:* NIC-1987 has classified all industrial establishments in ten (10) one digit sections namely:

- 0- Agriculture, hunting, forestry and fishing
- 1- Mining and Quarrying
- 2-3- Manufacturing
- 4- Electricity, Gas and Water
- 5- Construction
- 6- Wholesale and Retail Trade, and Restaurants and Hotels
- 7- Transport, Storage, and Communication Services
- 8- Financial, Insurance, Real Estate and Business Service
- 9- Community, Social, and Personal Services
- 10- Activities not adequately defined.

Sections are further subdivided into seventy two (72) two-digit divisions. The divisions group together homogeneously, industrial sectors constituting the section. Divisions are further sub-divided into 434 three-digit groups and 918 four-digit classes, but all three-digit groups *do not have* four-digit classes.

NIC-87 contains the major features and revisions of the ISIC-68 with a few minor exceptions. The NIC-87 groups together economic activities which are similar in terms of process type, raw material used and finished goods produced. The classification does not make any distinction according to type of ownership (except in the case of forestry, where the distinction is considered to be of considerable importance) or type of economic organisation (NIC, 1987). The unit of classification is an establishment (engaged in one or predominately one economic activity) at a single physical location under single ownership control of a firm or enterprise. If the enterprise has more than one establishment, engaged in different activities at the same location, or the same activities in different locations, each establishment is counted separately and classified appropriately.

*Sources of Industrial Data:* At the national level, industrial data are available in publications on population census, (issued by the Registrar-General of India), statistical data (issued by the Central Statistical Organisation), employment/unemployment data (issued by the Directorate-General of Employment and Training, e.g. in their Quarterly Employment Reviews), etc.

### *Occupational Grouping*

It has earlier been stated that a number of elements constitute a task. But when enough tasks accumulate to justify the employment of a worker, a *Position* is created. Each position requires the services of one individual, whether full-time or part-time. This means that there are as many positions in an establishment as there are workers employed therein.

A group of positions, which are almost identical in so far as their major/significant tasks are concerned, constitutes a *Job*. A job, thus, is a group of positions, which are sufficiently alike to justify their being

covered by a common title. At the national, even international level, reporting of individual positions or jobs would be impractical, so a practical unit of work, called an *Occupation* is adopted. This then, is the smallest unit in any national and international classification system. An occupation, for such a classification, is a group of almost identical jobs in several representative establishments all over the country.

Occupations may be classified and grouped in various ways to suit the user needs such as:

- (a) *Entry occupations*, viz., those not requiring previous work experience for entering into jobs. This grouping is very useful in counselling fresh school/college leavers for placement in job.
- (b) *Occupations suitable for various terminal stages of education*, such as occupations for high school leavers; occupations suitable for Science/Engineering/Commerce graduates etc. This grouping is also very handy for counselling career seekers.
- (c) *Occupations for disadvantaged groups*, e.g. those suitable for the handicapped (blind, deaf, mute etc.), disabled, retarded counselees, since their needs are specific and they need to prepare for specific occupations.
- (d) *Occupations classified according to fields of work*, e.g. medicine and health, engineering, agriculture, scientific and research work, accountancy, defence services, protective services, personal services etc.

In fact, numerous possibilities exist for grouping or classifying occupations though most countries have adapted the occupational classification compiled at the international level by the International Labour Office (ILO), Geneva.

*International Standard Classifications of Occupations:* The first ever attempt at classifying occupations, for statistical, placement, and migration purposes, was made by the ILO in 1949, when the seventh International Conference of Labour Statisticians, I.C.L.S. adopted a provisional classification of nine major occupational groups. This was followed by the *International Classification of Occupations for Migration and Employment Placement (ICOMEPE)* in 1952, with detailed descriptions of 1,727 occupations based on the national classifications of eight western industrialised countries.

The attempt was lauded, and it prompted the ILO to publish the first edition of the International Standard Classification of Occupations (ISCO) in 1958, which identified, defined, and coded 1,345 occupations. The second edition of ISCO, called ISCO-68 classified 1,506 occupations. The *latest edition* of the International Occupational Classification is called the International Standard Classification of Occupations 1988, ISCO-88.

*Basis of Classification:* The basic criterion for classifying occupations in ICOMEPI (1952), ISCO-58, and ISCO-68 was the *type of work performed*, based on three questions "What does the worker do?", "Why does the worker do?", and "How does the worker do?" certain tasks. As already discussed, based on similarity or identical nature of major tasks performed, jobs were classified into occupations. Vertical aggregation of occupations constituted 'Unit' groups, 'Minor' groups, and 'Major' groups; in ISCO-1988, another level between Major and Minor groups was created, designated as 'Sub-Major' groups.

The above three questions, determining the similarity of tasks performed for classifying an occupation missed one major dimension of an occupation, viz; the *skill involved* in or required for doing tasks constituting a job. This deficiency has been resolved in the latest edition of the international occupational classification, i.e. ISCO-88.

#### *Indian Occupational Classifications*

A classification of occupations, entitled "*The Guide to Occupational Classification*" (GOC) was compiled in mid-forties, primarily for use by Employment Officers, in Employment Exchanges for registration of job-seekers, notification of vacancies, referral of applicants to employers, and compilation of general statistics on employment and unemployment.

GOC was a rudimentary classification of a very limited number of occupations used primarily for resettlement of ex-servicemen discharged and demobilised after the World War II. It was an Alpha Numeric Classification, consisting of an alphabetic letter, followed by (Latin and Arabic) numerals e.g. N II 14 for clerk, general. Job descriptions were sketchy and the classification had an industrial bias.

Following the release of ISCO-58 by the International Labour Office, the Government constituted in 1958 a working group representing the major users of occupational data in the country. The working group approved, in March 1958, a three-digit code structure, based on the ISCO-58. The three-digit code structure was then expanded into a five digit occupational classification entitled "The National Classification of Occupations (NCO)-1958. NCO-58 also contained brief job definitions and descriptions of a limited number of occupations. NCO-58 consisted of 1,990 occupations aggregated into 331 Families (corresponding to ISCO-58's unit groups), 75 groups (corresponding to ISCO-58's minor groups) and 11 Divisions (corresponding to ISCO-68's major groups).

The second edition of NCO, entitled "NCO-68", contained detailed job definitions and descriptions of 2,484 occupations, aggregated into 462 families and 95 groups, fashioned after ISCO-68, with some modifications to suit Indian conditions. At present, NCO-68 is being used in the National Employment Service (for Employment Service Operations), and by the Registrar General of India (for population census), Central Statistical Office, Indian Statistical Institute, Labour Bureau etc. (for statistical purposes).

*Revision of NCO 68:* The United Nations had recommended, in 1970, that each member country should report population census and other statistical data according to at least the minor groups of ISCO. Thus, with the release of ISCO-88, the Government has taken up the revision of NCO-68, aligning it, as far as possible, with the ISCO-88, so as to facilitate international reporting and comparison of statistical data on population, employment and unemployment, wage-structure, etc. It is hoped the revised NCO will incorporate the changes introduced in ISCO-88.

*Likely Shape of the Revised NCO:* ISCO-68, as also NCO-58 had grouped the occupations based on the criterion of the type of work performed. It had stated that "by and large, factors like materials handled, tools or machines used, standard of performance required, levels of responsibility involved, physical and social environments,

industrial affiliations, and other abstract or associated factors e.g. level of intelligence, manual dexterity, physical strength, initiative, adaptability, ability to supervise, level of education, vocational training, etc., have not affected the grouping or classification of occupations".

In practice, however, even though the similarity of the type of work performed has been the prime factor in the grouping of occupations, other factors have been taken into consideration so as to provide flexibility and to make the classification system more useful and responsive to the needs of the country and the multiple uses, e.g.:

- (a) *Similar work surroundings and working conditions*, as in the classification of workers in Mining (NCO Group 71), Agriculture (NCO Division 6), Forestry (NCO group 66), etc.;
- (b) *Similar training, experience, and education*, as in Professional Technical and Related Workers (NCO division 0-1), Electrical and Electronic Equipment Workers and Installers (NCO group 85), etc.;
- (c) *Similarity of tools and equipment used*, as in the case of Furnacemen (NCO Family 721), Machine Tool Operators (NCO Family 835), Filter and Separator Operators (NCO Family 743), etc.;
- (d) *Similar materials worked on*, as in the case of Metal Processor Worker (NCO Group 72), Wood Workers (NCO Group 73), Tobacco Processors (NCO Group 78), Textile Workers (NCO Group 75), etc.;
- (e) *Similarity of the subject matter*, as in the case of Chemists (NCO Family 001), Physicists (NCO Family 000), Biologists and Zoologists (NCO Family 050), Agronomists (NCO Family 053), etc.;
- (f) *Executing similar processes*, as in the case of Metal Platers and Coaters (NCO Family 728), Printing Workers (NCO Group 92), etc.;
- (g) *Performing similar services*, as in the case of Waiters (NCO Family 521), Bartenders (NCO Family 522), etc.;
- (h) *Fabricating and repairing similar articles*, as in the case of Watch, Clock and Precision Instrument Makers (NCO Family 84), etc.

So, while similarity of work performed has been applied for grouping occupations in occupational families, an inference regarding a worker's qualification, status, and industry associated with can easily be drawn from occupational title, job description, and occupational grouping.

By and large, these ancillary criteria have still been applied in the revised edition of ISCO (ISCO-88). As most national classifications of occupations are being aligned with ISCO-88, to ensure international comparability of statistical data, these ancillary factors will also be used for the grouping of occupations in the revised edition of NCO-68.

NCO-68's major group 0/1 *Professional Technical and Related Workers*, as also ISCO-68's Major Group 0/1, claimed to contain "the greater part of the highly educated and trained personnel who carry out professional functions in scientific, engineering, medical, legal, teaching and other fields. Those performing certain functions covered in the major group may be required by the laws and regulations in force ... to possess a university degree, diploma or other specified qualification" (ISCO-68, page 9 of the Introduction).

Again, in practice, non-professionals, even elementary workers, have been classified in Major Group 0/1 e.g. Vaccinator (NCO 080-10), Inoculator (080-20), Dresser (080-30), Stockman (082-20), Animal Keeper (082-30), Midwife (085-10), Nursing Attendant (089.10), Midwifery Attendant (089.20), Laboratory Attendant (199.70), Snake Charmer (189.65), Puppeteer (189.70) etc.

#### *The New Conceptual Basis of Occupational Classification*

The criterion originally adopted for the classification of occupations in ISCO-58, ISCO-68 and NCO-68, viz; the *similarity of the type of work performed* depended on what a worker did in a job, why it was done, and how he or she did it? But the successful and efficient performance of work performed depends on the *skill level* and skill *specialisation* of the worker. Therefore, the revised edition of ISCO, entitled ISCO-88, is a skill based classification of occupations.

The concept of skill is represented in ISCO-88, and is to be represented in the revised edition of NCO-68, by two distinct criteria:

- (i) Skill Level and (ii) Skill Specialisation.

*The Concept of Skill Level of an Occupation:* The skill level is reflected in the sum-total of formal education, specific vocational preparation, on the job training, previous work experience, etc., so very necessary before an individual can satisfactorily perform the tasks constituting a job. Again the skill level required for a job will vary depending on the range and complexity of the set of tasks involved. The greater the range and complexity of the set of tasks involved, the greater the skill level for the job. A job that involves more *complex* tasks than another will naturally require a greater skill level than the other. Also a job requiring the performance of a wide variety and range of tasks will also require a higher skill level than a job which requires the performance of fewer of these tasks.

Naturally, the greater the complexity and range of tasks involved, the greater will be the need for the sum total of formal education, on the job training, special vocational preparation and work-experience for the satisfactory and efficient performance of such tasks. That explains why all over the area, in all types of administrative and political set ups, an engineer is paid higher salary than craftsmen like fitter, turner, machinist. It is because an engineer requires a degree or a post graduate degree in engineering, along with adequate experience, involving completion of 16 to 18 years of educational and professional engineering courses combined with significant practical experience, while a craftsman will typically have to complete middle or high school education, and do a certificate/apprenticeship training course in the trade concerned (i.e. 9 to 12 years of preparation) before he is eligible for the job. This also explains, why work involving intellectual application of a worker is rewarded with higher financial consideration than that involving just physical or manual effort.

*The Concept of Skill Specialisation:* The skill specialisation is a further break-down of skill level. It is the application of the *field of knowledge* acquired at the skill level to the *use of tools and equipment used, materials worked on, production processes, goods produced, and services rendered* while performing the tasks involved.

*Conceptual Framework for the Revised NCO:* ISCO-88, on which the revised NCO is being based, has defined the conceptual framework in the following words:

"The framework necessary for designing and constructing ISCO-88 has been based on two main concepts: the concept of the kind of work performed or *job*, and the concept of *skill*.

*Job* defined as a set of tasks and duties executed, or meant to be executed, by one person, is the *statistical unit* classified by ISCO-88. A set of jobs whose main tasks and duties are characterized by a high degree of similarity constitutes an *occupation*.

*Skill* defined as the ability to carry out the tasks and duties of a given job, has, for the purposes of ISCO-88, the following two dimensions:

- (a) *Skill level*: which is the function of the complexity and range of the tasks and duties involved; and
- (b) *Skill specialisation*: defined by the field of knowledge required, the tools and machinery used, materials worked on or with as well as the kinds of goods and services produced.

On the basis of the skill concepts thus defined, ISCO-88 occupational groups were delineated and further aggregated.

*The Use of ISCED:* At the International level, the UNESCO compiled in 1976, the International Standard Classification of Education (ISCED) for assembling, compiling, presenting, and reporting educational statistics within individual member countries and internationally. ISCED facilitates international compilation and comparison of educational statistics and their use in conjunction with manpower and other socio-economic statistics.

ISCED covers education for all types of students (children and young people who may educationally progress from pre-primary/primary school through university including adult education), and for all ages.

Seven categories of education based upon level are incorporated into the ISCED, each represented by an Arabic numeral as shown in table 10.1.

**Table 10.1**

<i>Level</i>	<i>Description</i>	<i>Entry Age</i>	<i>Duration</i>
0	Preceding the First Level (Pre-primary education)	3/4/5 years	1 to 3 years
1	First Level (Primary level of education)	5/6/7 years	5 to 6 years
2	Second Level, First Stage (Lower secondary schooling)	11 or 12 years	3 years
3	Second Level, Second Stage (Under secondary schooling)	14 or 15 years	3 years
4	(Left blank in ISCED)		
5	Third Level, First Stage (Undergraduate e.g. diploma courses)	17 or 18 years	3 years
6	Third Level, First Stage (First university degree equivalent including professional programmes)	17 or 18 years	4 years
7	Third Level, Second Stage (Post graduate university degree or equivalent)		
8	Education not definable by level		

ISCED requires adaptation when it is to be used for national purposes.

*The Use of ISCED in ISCO-88:* Reverting to the revision of ISCO/NCO, which have used skill concept (skill level and skill specialisation) in recasting their classification and code structure, *only four broad skill levels were used*. They have been given operational definitions in terms of educational levels and categories included in the ISCED. Skills required for performance of "the tasks and duties of a given job need not be acquired only through formal education. The skills may be, and often are acquired through informal training and experience ..."

Therefore, as a rule, the following operational definitions of the four ISCO-88 (PP 2-3) skill levels apply where the necessary

occupational skills are acquired through formal education or vocational training.

- (a) The *first ISCO skill level* was defined with reference to ISCED category 1, comprising primary education which generally begins at the age of 5, 6, or 7 and lasts about five years.
- (b) The *second ISCO skill level* was defined with reference to ISCED categories 2 and 3, comprising *first and second stages* of secondary education. The first stage begins at the age of 11 or 12 and lasts about three years, while the second stage begins at the age of 14 or 15 and also lasts about three years. A period of on-the-job training and experience may be necessary, sometimes formalised in apprenticeships. This period may supplement the formal training or replace it partly or in some cases, wholly.
- (c) The *third ISCO skill level* was defined with reference to ISCED category 5, (*category 4 in ISCED has been deliberately left without content*) comprising education which begins at the age of 17 or 18, lasts about four years and leads to an award not equivalent to a first university degree.
- (d) The *fourth ISCO skill level* was defined with reference to ISCED categories 6 and 7, comprising education which also begins at the age of 17 or 18, lasts at least three, four or more years and leads to a university or post graduate university degree or the equivalent.

*New Occupational Structure:* The NCO-68 in use in the country at present, has the structure shown in table 10.2.

Table 10.2  
N.C.O.-68

NCO	No. of Divisions	No. of Groups	No. of Families	No. of Occupations
1968	8	95	462	2484
1958	11	75	331	1990

NCO-68 has the following Occupational Divisions, Sub-divided into Groups and Families:

- Division 0-1 Professional, Technical and Related Workers
- Division 2 Administrative, Executive and Managerial Workers
- Division 3 Clerical and Related Workers
- Division 4 Sales Workers
- Division 5 Service Workers
- Division 6 Farmers, Fishermen, Hunters, Loggers and Related Workers
- Division 7-8-9 Production and Related Workers, Transport Equipment Operators and Labourers
- Division 10 Workers not classified by Occupations.

The shape of revised edition of NCO-68 (under revision at present) has still to be determined, but since it is being closely aligned with ISCO-88, it may be useful to discuss the ISCO-88 occupational structure (Table 10.3).

**Table 10.3  
Revised ISCO-88**

A new level of aggregation called sub-major group has been introduced for the first time in the occupational classification.

S. No.	Title of Major Groups	Sub-Major Groups	Minor Groups	Unit Groups	ISCO Skill Level
1.	Legislators, Senior Officials & Managers	3	8	33	-
2.	Professionals	4	18	55	4th
3.	Technicians and Associate Professionals	4	21	73	3rd
4.	Clerks	2	7	23	2nd
5.	Service Workers and Shop and Market Sales Workers	2	7	23	2nd
6.	Skilled Agricultural and Fisher Workers	2	6	17	2nd
7.	Craft and Related Trades Workers	4	16	70	2nd
8.	Plant and Machine Operators and Assemblers	3	20	70	2nd
9.	Elementary Occupations	3	10	25	1st
0.	Armed Forces	1	1	1	-
	Total	28	114	390	

All major groups have been linked to the four ISCO-88 skill levels. The concept of skill level has not been applied to the major group I-Legislators, Senior Officials and Managers, since the skills for executing tasks and duties of occupations in the major group are so varied that these cannot be limited to any of the four ISCO-88 skill levels.

Further sub-divisions of ISCO-88 occupational groups, providing successively finer details, were carried out on the basis of skill specialisation defined by reference to the field of knowledge required (e.g. subject matter, production, process), the tools, equipment, aids and machinery used; the materials worked on or with, as well as the kinds of goods produced and services rendered. These are the same variables, that were used in the sub-division of NCO-68 occupational divisions, groups and families.

**Table 10.4**  
**ISCO-88 as Related to ISCO-68 and ISCO-58**

<i>ISCO</i>	<i>No. of Major Groups</i>	<i>No. of Minor Groups</i>	<i>No. of Unit Groups</i>	<i>No. of Occupations</i>
1988	10	114	390	—
1968	8	83	284	1,506
1958	10	73	201	1,345

#### *Summary of ISCO-88 Major Groups (NCO's Divisions)*

##### *Division 1: Legislators, Senior Officials and Managers*

This Division consists of the top legislative, executive, judicial and administrative occupations of the country. Their main tasks consist of planning, formulating and deciding on policies, laws, rules and regulations of the national (central) and state governments, local bodies; and of planning, formulating, organising, coordinating, controlling and directing policies and operations of enterprises and organisations.

The core content of this group is the same as that of Division 2 (Administrative and Managerial Workers) of the NCO-68; of course, numerous occupations with similar tasks and classified in other NCO-68 Divisions have also been added.

Specialised managers and administrators as also managers and supervisors of small business establishments have also been classified in this Division. They have been included here on the basis of *skill specialisation* criterion. Other business and administrative professionals and associate professionals not concerned with policies, planning etc. of the government/establishments, have been classified in Divisions 2 and 3.

#### *Division 2 : Professionals*

This Division covers occupations whose main tasks require a high level of professional knowledge and experience in engineering, natural sciences, social sciences, humanities and related fields. These occupations require skill at the fourth level (Degree and Post-Graduation qualification). Their main tasks consist of engaging in the practical application of scientific and artistic concepts and theories, increasing the existing stock of knowledge by means of research, development, and creativity, and teaching about the foregoing in a systematic professional manner.

Naturally, administrative, technical and related workers classified in division 0/1 of NCO-68, have been split according to *skill level* criterion so that many health, teaching, religious, and artistic workers are now classified as Associate Professionals in Division 3.

#### *Division 3 : Technicians and Associate Professionals*

This Division covers occupations whose main tasks require the experience and knowledge or principles and practices necessary to assume operational responsibility and to give technical support to Professionals (Division 2) in engineering, natural sciences, social sciences, humanities and related fields. Occupations included in this Division require skill at the *third skill level* (under-graduate professional qualifications). Therefore, numerous occupations, included in Division 0-1 (Professional, Technical and Related Workers) of NCO-68 have been brought under the Division (3) for Associate Professionals.

#### *Division 4 : Clerks*

This Division covers occupations whose main tasks require the knowledge and experience necessary to record, organise, store and

retrieve information, compute numerical financial and statistical data; and perform other clerical duties. Occupations in this Division require skills at the second skill level.

#### *Division 5 : Service Workers and Shop and Market Sales Workers*

This Division covers workers whose main tasks require the knowledge and experience necessary to provide personal services related to travel, housekeeping, catering, personal care; to sell and demonstrate goods for wholesale or retail shops; and to provide protective services. These occupations require skill at the second skill level.

#### *Division 6 : Skilled Agricultural and Fishery Workers*

This Division covers occupations whose tasks require the knowledge and experience necessary to grow and harvest crops; breed, feed or hunt animals; and breed and catch fish. These occupations require skills at the second skill level.

#### *Division 7 : Craft and Related Workers*

This Division covers workers whose tasks require the knowledge and experience necessary to extract and treat raw materials; manufacture and repair goods; and construct, maintain and repair roads, structure and machinery. Their main tasks require an understanding of and experience with the work situation, raw materials worked on or with, and requirements of the structures, machinery and other items produced. These occupations require skills at the second skill level.

#### *Division 8 : Plant and Machine Operators*

This Division covers occupations whose main tasks require the knowledge and experience necessary to operate vehicles and other mobile equipment; to tend, control, and monitor the operation of industrial plant machinery; and to assemble products from component parts according to specified rules and procedures. These tasks require mainly experience with and an understanding of the machinery worked with. These occupations require skills at the second skill level.

*Division 9 : Elementary Workers (Operatives)*

These occupations require the knowledge and experience necessary to perform simple, routine and repetitive tasks, involving the use of simple hand-held tools and certain physical effort, but only limited personal initiative and judgement. These occupations require skills at the first skill level.

*Division 0 : Defence Services/Armed Forces**Division X : Workers Not Classified by Occupations*

This Division is primarily for the classification of fresh labour market entrants seeking employment at the employment exchanges. Job seekers, who have not worked before and are not trained or equipped for specific jobs, but are keen to take up any job may also be classified in this Division.

*Relating Occupational Classification to Career Counselling*

Occupational classification and information tools are used for many manpower programmes e.g. career guidance, vocational training, apprenticeship training, curricula development, trade testing programmes, vocational rehabilitation, employment counselling, employment placement etc.

The new occupational classification, based as it is on the criteria of skill level, skill specialisation and type of job performed, is particularly useful in counselling programmes as occupations suitable for various educational levels are grouped together in different (Major Groups) Divisions and within each Division further sub-grouping is done according to skill (subject) specialisation; machines, tools, equipment used; products produced or services rendered; production processes involved; common work surroundings, etc.

The Directorate-General of Employment and Training, Government of India, Ministry of Labour, are regularly bringing out studies/data on employment and unemployment based on traffic at the employment exchanges. They also compile and publish, periodically, employment market information reports based on reports compiled by and collected from establishments, giving information on employment

status in the country, states and districts; also for various occupations and categories of workers, both in public and private sector establishments, engaging 10 or more persons.

Since the publication of the last NCO, efforts are on to revise NCO'68 on the pattern of ISCO-88 and the revised edition is likely to include information on new jobs which have appeared on the Indian economic scene.

## Chapter 11

# RESEARCH IN CAREER COUNSELLING AND DEVELOPMENT

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*Sunitee Dutt*

Like in any other discipline, innumerable questions are raised about the validity of the assumptions underlying approaches to understanding career development functions and processes and the significance of differences in various approaches, methods and techniques one employs in attaining and assessing the outcomes. In order to find answers to these questions, it is imperative to generate factual evidence instead of basing our decisions on sheer conjectures and personal opinions. Research is one viable source of raising such factual data.

### *Research as a Fountainhead of Knowledge*

Research is basically a process of seeking answers to questions in a systematic manner by the use of scientific methods. It is regarded as a fountainhead of knowledge in any area. A careful understanding of the nature of research in career development, the underlying rationale, research as a tool to achieving social ideals, and the utility of research for the future is of great value. It is undeniable (i) that research can develop theories and (ii) that it can test theories. The International Research Centre, Ottawa, points out that in the absence of empirical data and analysis, policy and programme choices will likely be guided by present conventional wisdom, intuition, or personal interest.

It is emphasized, firstly, that decision makers themselves must be involved in research process and take part in interpreting the results for bringing about change. Secondly, recognizing the close relationship that exists between the educational system and employment patterns it is felt that there is a need to assess the types of knowledge, skills, and attitudes to be developed for a wide range of available occupations. Such thinking has opened new dimensions of research in career development. Experiences of other countries have shown that the promise of research in career development is immense. Keeping this promise in view, let us examine the plausible contributions of different types of research and techniques to the advancement of career development theories, practices, and outcomes.

#### *Role of Different Types of Research and Research Approaches*

Though it is true that persons and careers are the two facets of study in career development, a variety of researches have relevance in this field.

Careers can be studied in several ways by understanding:

- (i) occupational requirements of personality traits like intelligence, academic ability, interests and aptitudes of would-be workers;
- (ii) physical qualities and gender-bias in occupations;
- (iii) occupational structure of a society;
- (iv) demands and supply of a labour market;
- (v) possible opportunities of vertical and horizontal mobility of workers;
- (vi) work conditions, work culture, and organisational structure where work is done;
- (vii) economic benefits—monetary and non-monetary;
- (viii) social prestige and work value of occupations; and
- (ix) career pattern of workers.

Career development theory, as we all know, has its basis in psychological, sociological, and economic theories which draw their substance from prevalent general philosophies that guide the social philosophy of a country. To say, therefore, that career development can be explained exclusively on the basis of psychology or sociology or economics is to take a limited and narrow view of career deveopment.

It may, however, be pointed out here that different career development theories advanced by various experts will make this stand very obvious.

Nevertheless, it is also true that different types of research have their own unique objectives to fulfil, their own design of study peculiar to that type of research; and their own suitable methods of analyzing and synthesizing the data to arrive at a conclusion or generalisation. It is in this context that one needs to examine the criteria of relevance in the choice or selection of a research approach.

Broadly speaking, *philosophical* studies in career development may like to answer the question, why career development at all? The *psychological* and *sociological* studies may attempt to find out the personal-physical and environmental factors that become components of career development. These studies may employ different research approaches in the light of their objectives. A *historical* approach to the study of career development may provide to widen its horizon by clarifying the changing concept of career development in its historical perspective and by explaining its present status in any country. Yet, there is a great reluctance to use the historical method of research as it is impossible to generate data. The researcher has to work with the already available data by interpreting 'what', 'why', and 'how' of these data. Interpretations may take the form of historical hypotheses which stand to test or in the form of a historical generalisation which may be open for criticism and debate.

*Comparative* methods of research are no less important in the study of career development, but one drawback of such an approach is its methodology which is still considered rather fluid. The intent of a comparative method of research is not to transplant a good model of career development from one country to the other, but how to adapt it to the best interest of all. To transplant a model will end in a fiasco, as sociological and economic conditions differ from country to country and work culture varies not only in different organisations within a country but there exist also broad cultural differences between countries.

The application of *survey* method of research (both descriptive and evaluative) is the need of the day in a developing country. The needed data on career development may be generated by constructing and using appropriate instruments for assessment of men and jobs and by

training research personnel to learn to employ sophisticated designs of study to get meaningful results. When the intent of longitudinal survey is to study psychological, educational, or occupational trends, it helps to make predictions, too. *Correlational surveys* also assist to determine factorial composition of educational and psychological data by making use of factor analysis of the inter-correlational matrix. With the introduction of computer, drudgery involved in manual computation has been much minimised; and that will give an opportunity to factor analysis to emerge as a very powerful research tool in the analysis (of a complex phenomenon) like career development. Its use in the study of the different factor components of career development and occupational choice cannot be, thus, overlooked.

*Experimental* method of research is much needed in this field, too, when there is a great demand to identify functional relationships of cause and effect between and among factors that influence career development. According to George J. Mouly, "the use of experimentation in the behavioural sciences, on the other hand, poses special problems from the standpoint of control, the basic concept underlying its operation. .... It is only since the recent development of 'multivariate analysis' that experimentation has become applicable to the more realistic problems which a complex discipline like education presents".

The use of *predictive* method of research as in the study of career choice and selection and again in career satisfaction and work adjustment cannot be over-emphasised. It is possible to make prediction either from a trends study or on the basis of association (correlation) between variables. The choice of predictor and criterion is of great significance, and greater emphasis needs to be placed on the theoretical considerations underlying the relationship on which the prediction is made.

In conclusion, it can be said that the contents of this unit have made us more aware of the need and the value of research in the areas of career choice and selection and career satisfaction and work adjustment. We have also gained an understanding of the types of research on which our investigations can be based in order to find out what is desirable for the future and what is feasible for the present while concerned with determinants of success and failure at work.

### *Researches on Human Abilities vis-a-vis Occupations*

The first incentive to research on human abilities regarding vocational choice and success was given by the work of Frank Parsons (1908) who saw the necessity of guiding youth to jobs according to their abilities. The idea of directing people to select suitable jobs according to their abilities led to the psychological testing movement not only in United States of America but also in England and Europe and to some extent in independent India. For quite some time vocational guidance took a pragmatic and logical approach of fitting men to job, though it was realised that both assessment of men and assessment of occupations are essential to attain this purpose, research work began in case of the former rather than the latter, historically trying to find out answers to the following:

- a. What are the dimensions of human abilities to be used in vocational guidance?
- b. What are the methods to be employed for assessment of these human abilities?
- c. How can the validity and reliability of such instruments be interpreted in the practice of vocational counselling of individuals?

The following research directions are helpful in regard to tests:

1. Though intelligence tests are very powerful instruments for assessing human abilities in relation to vocational choice and success, there is not a single test which has achieved perfect validity.
2. There is a great need to enhance validity of aptitude tests and even differential aptitude tests because of "the pervasive nature of factors" in them.
3. Interest inventories are criticised for their sex bias, and their use becomes limited in a different country because job specification differs from country to country. More researches are needed in the area of motivation, too, as the two areas are closely linked with each other.
4. The tests of creativity have not proved to be successful. Further research is needed in this field of creativity.
5. No satisfactory research work has been done in the area of artistic ability, therefore use of tests of artistic ability is not justified.

6. Achievement tests, usually constructed by educational psychologists, are of great value in predicting future academic success rather than in predicting vocational success. Nevertheless they are very useful to classroom teachers.
7. Projective tests, if processed through statistical analysis, may prove to be of great value to guide special groups of deviated children.
8. The dimensions of psychomotor abilities are very complex and thus are difficult for assessment. Researches in this area should not be neglected as they show great promise for the future.
9. As no tests have been able to establish perfect validity, it is advisable to establish the utility of non-testing techniques such as the autobiography, cumulative and anecdotal records, socio-metric data, structured and unstructured interview, etc. for vocational guidance of pupils.
10. In India research on adaptation of foreign tests is needed to be undertaken due to lack of interest in and feasibility of developing original tests having professional standing.

#### *Researches on Occupations vis-a-vis Individuals*

The present discussion focusses on the study of jobs, their requirements, and measurement procedures of job evaluation in order to fit individuals to jobs. This can only be done by studying the job itself.

Occupational researches have used various methods of classification of occupations to study these in relation to individual, namely; (i) industrial classification system in terms of major industries available in a country, (ii) occupational classification system in terms of occupations (type of activity) found in each industry, (iii) job classification system in terms of jobs found in each occupational group (that includes classification of jobs, skills, jobs and their requirements and job openings), and (iv) functional classification system which defines work performance by the functions involved in the work. The last classification system (of worker traits) stresses on the functions of the job rather than its contents as seen in the third classification system. At this stage, attention of the researchers was drawn on finding

relationship between occupations which need common/similar worker traits. Between the two arrangements of such occupational groupings, one is oriented towards worker and the other towards work.

Occupational researches of the kind mentioned above are needed and sponsored by the government by establishing research units at various geographical levels. These mainly serve the purposes of the government in collecting occupational information for various reports, for compiling dictionary of occupational titles, and in preparing occupational files and job profiles. These again serve the government in the process of its employment of new entrants to jobs, in placement and transfer of experienced workers on account of surplus and shortage of jobs, and finally in restructuring jobs in a changing world of work. These types of occupational information were very helpful to the job seekers when vocational guidance was almost in a fluid state. Even today their importance cannot be overlooked as these types of information help an individual to know the job avenues or job opportunities in a broad spectrum of labour force and labour market for developing career awareness in him.

How are these rational occupational data obtained? These are gathered at various levels: local, district, state, regional, and national. This also helps in knowing about occupations at all these levels; and finally helps to make a national picture about occupations. The local information about occupations is collected in two ways: by conducting local occupational surveys and by undertaking follow-up studies of school leavers to know the available local occupations into which the school leavers may be employed. It is indicated that schools (counsellors), with the help of community resource personnel, are competent to do both these researches. It will not only enhance the research capabilities of counsellors but these studies will benefit the schools and the community alike.

At the time of placement of job-seeker (or at the time of choice) the job-seeker has many specific questions to ask, besides the general orientation that he has already had. Then job description becomes very essential to the individual. Job description is arrived at by job evaluation, which uses a technique known as job analysis (a combination of observation of worker's performance and interview of employed workers). In the main, it is a subjective tool of research; and there is all

possibility of over-emphasizing a least important job requirement or under-estimating a major job requirement. Job evaluation techniques have been studied by many individual researchers.

Realising the inappropriateness of job analysis as a tool for assessing job requirements, Gagne (1965) recommended the use of task-analysis to replace job analysis. Task analysis is a detailed set of instructions given to carry out a task, which is performed within a system or an institution. This tool is used by system analysis in the case of system development. R.V. Miller's work is note-worthy in this field.

It may be noted that task description with the help of task-analysis is no guarantee for job satisfaction or job success. To meet these demands several other classifications of occupations have been developed. Let us examine these one by one.

1. Classification based on socio-economic status and prestige ranking of occupations is even popular today and is most widely used. Edwards' (1943) grouping of occupations based on socio-economic status drew the attention of many other researchers to find the validity of such groupings and evidences were found that the youth are very much influenced by these two factors while making vocational choice.
2. Classification of occupations based on interests proved quite satisfactory to determine vocational interests of individuals. As we all know studying occupations in relation to interest areas are particularly of great significance to the young students because it is believed that if the work is enjoyed then it can be expected that the individual may also excel in work performance. Other details may be found in the Strong Vocational Interest Blank and Kuder Preference Records. Usually interests are measured with the help of interest inventories such as the above.
3. Occupations have been classified on the basis of school subjects, too. Though not a clear-cut classification, it helps the subject teachers in schools to be aware of the vocational implications of their subjects and students are also helped to perceive them in the same way. Specially, students receive maximum amount of assistance from this classification at the

time of choosing an academic stream from many that are offered at the secondary stage of education.

4. The two-dimensional classification of occupations developed by Anne Roe (1956) is based on both 'group' and 'level'. According to Roe, "group subdivisions (eight in number) indicate the primary focus of an activity (or interests) which may be on personal interactions viz; supportive or exploitative, close or more distant, personal or administrative". It is a complex classification but is popularly used by researchers.
5. A three-dimensional classification of occupations based on level, field, and enterprise has been offered by Donald E. Super (1957). He has modified Roe's classification into level and field and has added a third dimension i.e. enterprise to them. According to Super "a knowledge of the settings of occupations as well as opportunities for change of employment within a field of work are important in selecting a vocation".

In the end, it may be suggested that researches aimed at validating these classifications for enriching career development theory and practice with specific emphasis on Indian settings are called for.

### *Research Implications for Counselling Process*

In order to understand the implications of researches on human abilities and occupations in respect of career choice and success, it is necessary to study the impetus given by these researches to bringing in change in the concept or emphasis of vocational guidance.

The first concept of vocational guidance was to fit the individual to the job. It was, therefore, found adequate to know only the facts about jobs (content) that the counsellor should have at hand when attempting to assist students in the study of occupations or to assist them in any situation relating to career choice. The concept of individual differences also emphasized only the innate ability (intelligence) of a person. Vocational guidance at this stage of development did not delineate any specific role and functions of a counsellor, nor did it indicate the bases of counselling and counselling approaches. At this point, it was felt that for adequate vocational guidance to be given to an individual there is a need to know job-specifications and person-specifications which ushered in researches on job assessment and

person assessment. The study of the dimensions of individual differences with the help of factorial analysis confirmed that such differences in intelligence, personality, aptitudes, and interests together with job specifications are of great significance in career guidance. These researches brought about a change in the definition of vocational guidance. It was defined as "the assistance given in connection with choosing, preparing for, entering upon, and making progress in an occupation" which meant to stress the methods of counselling primarily to assist in choice of occupation, in getting a job, and in becoming adjusted to the job. These were important to the counsellor as well as to the counselee.

The researches brought about changes in many significant ways, a brief discussion of which may gear up further thinking on these lines.

First, these clearly defined the role-function of a counsellor including ethics of counselling. Emphasis was laid on the type of relationships that should exist between counsellor and the counselee, between counsellor and parents, and between counselee and the other school personnel. Also, principles laid down as to how to handle tests and occupational information with the school guided his day-do-day work with individuals. In short, in relation to tests and occupational information he has developed a sense of responsibility regarding when and how to use them at the opportune time, knowing very well the purpose of using them.

Second, while using tests in counselling sessions the counsellor learnt how to explain what tests measure, what test scores mean, what reliability and validity of the tests are while interpreting test results. While using occupational information in the counselling process, he kept in mind the instinctive, readjustive, motivational, reassuring, evaluative, and other purposes as identified by Baer & Roeber (1958).

Third, the counsellor was made aware that both the tests and occupational information are to be used at several phases of counselling, namely; analysis, synthesis, diagnosis, prognosis, counselling, and follow-up, wherever the need be.

Fourth, a counsellor needs some theoretical framework for helping an individual; and this is derived from concepts developed by researchers. The knowledge of psychological tests and their predictive strengths together with the understanding of job evaluation techniques

has given a definite degree of directiveness to the counsellor's approach to counselling. This is also known as directive counselling in which the counsellor plays a prominent role but is scientific in approach.

Finally, by possessing all the above characteristics a counsellor sets to evaluate his skill and the effectiveness of counselling. Very common method of evaluation is the analysis of recorded counselling sessions to find out which counselling techniques have the desired results. The other method is the use of critical-incident technique. This is a recent technique of setting up criteria by which to evaluate counselling and counselee behaviour.

As a closing comment, it can be said that the researches on human abilities and job evaluation have given a definite direction to the counsellor's work by making it more exciting and dynamic. This role of his has enabled him to make the counselling process more research-oriented than ever before and has stimulated him to become both a consumer and producer of research.

In conclusion, it may be pointed out that the preceding discussions have drawn the attention of the readers to certain research issues. The major ones are as follows:

1. In matching individuals to jobs, is it adequate to consider only "job specification" and "person specification" or is it necessary to relate personal-social data with occupational, educational, and training data?
2. Can career awareness be nurtured from the very young age of a child to bring about a satisfying and meaningful career choice when he becomes an adolescent?
3. Are measuring instruments of specific type necessary in predicting career choice, career success, job satisfaction, and work adjustment?
4. Can career development be limited and related to different developmental stages of human growth?
5. If all the above questions are answered in the affirmative, does it mean that schools will change/modify their present/existing philosophical perspectives?
6. If yes, what will be the role of guidance — as a point of view and as a service?

## Chapter 12

# ASSESSING CAREER THEORIES, THEIR IMPLICATIONS FOR CAREER COUNSELLING, FUTURE RESEARCH, AND THEORY BUILDING

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*Sunitee Dutt*

The main intent of this chapter is to analyse all the career development theories, as a whole, in order to know their contribution as a body of knowledge in the field of career development. In a few places statements have been reiterated with the sole objective of laying emphasis or re-emphasis for confirmation of ideas, or for raising doubts in the minds of researchers. It is well known that the need for career development theories arises as a result of dissatisfaction in the vocational counselling situations. Pual Kline points out that these vocational counsellors are not able to know definitely (a) the determinants of occupational choice; (b) the way these determinants develop; and (c) the factors influencing their continuous change in job satisfaction. They are, thus, in search for support of some kind or a rationale to guide their professional work.

### *Assessing Career Development Theories*

A theory of career development as discussed by Brown and Brooks (1990) and elaborated upon in an earlier chapter here, needs to possess

and fulfil all the characteristics of a good scientific theory with a special emphasis on its power of explanation. Brown (1990) delineates these in the following explicit terms:

1. A theory should explain important phenomena;
2. A theory should explain past, present, and future findings as well as abstractions that are already known at the time of its statement;
3. A theory should be comprehensive;
4. The terms, constructs, and the nature of the inter-relationships between and among propositions of a theory should be clearly stated;
5. A theory should be parsimonious;
6. A theory should be heuristic;
7. A theory should allow for understanding, prediction, and eventually, control;
8. A theory should provide a guide to practice.

The experts who reviewed the available theories of career development arrived at two very significant inferences:

- (i) that these are all general in nature; and
- (ii) that these are applicable to different stages of development.

These generalisations have several implications such as:

- (i) Is it possible and necessary to formulate concrete suitable hypotheses within a framework of a general theory or, is it possible and necessary to formulate independent specific theories instead?
- (ii) Looking at the emphasis on different developmental stages of these theories is it possible to indicate needed research direction regarding viable theories that seem to have great potentialities for improvement?

This unit addresses these and other such issues.

A scrutiny of various theories of career development reveals that the following dimensions have been covered by the theories:

- (1) The fundamental basis of the theories have been considered. It has been found that all the established theories have based their philosophical assumptions on logical positivism, an age old position of philosophy of science, except the theory of

career-decision making presented by Miller-Tiedeman and Tiedeman. The viewpoint of this theory has expanded the dimensions of career development as proposed by the earlier career development theorists like Williamson, Roe, Bordin, Holland, Super, and Krumboltz. It may be pointed out here that the theories founded on traditional logical positivism aim to be both 'descriptive' and 'predictive'. Whereas the theories based on phenomenological assumptions are 'non-predictive' and 'non-control' oriented. For this reason, it is advisable to evaluate a particular theory on the essentials of its philosophical foundation rather than on criteria outside it. Each philosophical tenet is guided by its own objectives and it follows its own individual approach to practice. But the adequacy measurement of the theory in relation to its social context is done with criterion measure outside its philosophical perspectives. This point will become clearer as the examples are cited along with the presentation of ideas that will follow.

- (2) It has been observed from the study of different theories that most of these address the issue of why individuals choose careers and a few of them also deal with the process involved in the choice. While relating persons to jobs, these theories also indicate different causal factors though they primarily emphasize that the whole phenomenon of career choice deals with matching individuals with job requirements. Trait and factor theory states that occupational choice rests on personality traits such as interests and aptitudes, Roe's need theory and Bordin's psychoanalytic model emphasize the fulfillment of personality needs; whereas Holland indicates in his Typology that types of occupations and types of personality can be matched together. Krumboltz contends that career choice is the result of behaviour of the individual—a culmination of continuous interaction between him and social situations. Super, however, maintains that the changing self-concept in personality structure plays a significant role in career choice.

- (3) Almost all the theories lack in giving a comprehensive theoretical statement. Super's theory has been judged to be the most comprehensive. In his latest version (Super, 1990) he has built into his theory a sociological perspective of work to make it a befitting comprehensive theory.
- (4) Trait and factor theory together with those of Holland and Super can claim, and rightly so, to be heuristic. Their constructs are well defined; they lend themselves to adequate and appropriate measurements; and they have potentialities of generating testable hypotheses. Thus, they deserve to be called research oriented theories.
- (5) Trait and factor theory and Krumboltz's social learning theory show rigorous use of inductive-deductive approach to theory building.
- (6) In relating theory to practice which is the hallmark of excellence of a theory, it can be said that Super's, Holland's, and Trait and Factor theories have achieved much in this direction than any other theory. Roe's and Bordin's theories have great potentiality for advancement. Though their current state of development is not at all impressive, it is encouraging all the same.

At this point, a reference may, however, be made to the reason for not discussing Ginzberg et al's theory as Brown and Brooks (1990) have remarked, "Ginzberg's original statement had significant impact on the development of theory and a lesser impact on research. It never had a significant influence on practice and thus little impact on current development research and practice."

#### *Implications for Future Research and Theory Building*

The discussions so far have given rise to a number of pertinent issues and queries, which have implications for future research into theory building.

Firstly, it has been mentioned in the beginning that most of the career choice and development theories have based their assumptions on logical positivism which may warrant that occupational choice and career development is "sequential, patterned, and normative". Can one maintain this position if any shift is made in philosophical perspective?

Already 'status attainment theory' of sociologists and 'dualist theory of the economy and labour market' of the economists are casting doubt on such a philosophical assumption for career choice and selection. Krumboltz in his social learning theory also stresses that individual and the environment affect each other.

The question that arises, therefore, is: can theories based on logical positivism incorporate some attributes mentioned in the sociological perspectives on work and social learning theory so that they can, as is considered desirable, take into account all possible variables that seem to be influencing career development?

Secondly, the new and recent theories on career development are incorporating issues such as gender-differences, race-differences, and unemployment in their respective theoretical explanations which the previous theories failed to do. Some of the traditional theorists have, however, counter attacked by saying that their's have been "a holistic approach" to career development and others have remained silent on this issue. Super made an honest attempt to delineate career patterns of women. In addition, he has also accepted in principle that there is no global theory for career choice and development. Problems of poverty and unemployment have also come to the forefront both in developed and developing countries. It is now considered to be a new concept and subject of study in the area of career choice and selection because of rapidly rising costs and diminishing national resource for students.

The question here is: can such issues be incorporated into different theories, with the expectation of maintaining their independent identity and integrating into them the attributes that have a legitimacy for inclusion in building a theory? For example, can Krumboltz's theory of social learning incorporate sociological and economic data to produce a more viable theory in career choice and selection?

Thirdly, analysis of the existing theories have also opened up a wide vista of research problems and research directions by pointing out gaps in knowledge such as the following:

- (a) How do self-concepts develop; how are they interrelated; and what forces influence this change?
- (b) How does the process of change in personality take place to explain fully its influence on career choice?

- (c) How can personality needs be further analysed to see their influence on career choice and career development?

Many more questions may be added to the list, if detailed analysis is made of each theory. It needs to be a continuing search and modification of theories in the light of new facts.

At this juncture, it is necessary to point out that discussions of the theories have, in no way, been exhaustive either quantitatively or qualitatively. It only rested on three main concerns viz; (a) the clarity of the theory, (b) its ability to stimulate further theorization, and (c) the extent to which it is liable to be tested.

The discussion now can be summed up in the words of Van Dalen, "to conduct research without theoretical interpretations or theorize without research is to ignore the essential function of a theory as a tool for achieving economy of thought".

#### *Assessing Theories of Career Satisfaction and Work-Adjustment*

It may be noted that theories of career choice and selection were concerned with persons and occupations before placement is made on the job whereas theories of career satisfaction and work adjustment relate the person to job when he has already made a selection of the job and he is in the work situation.

Therefore, the subject of discussion mainly centres around satisfaction-dissatisfaction and adjustment-maladjustment of the person in relation to his work and work environment.

It has long been felt that the arena of research in this direction was restricted to investigations on persons (choice-makers) and not on jobs which are equally important as all occupations have their demands on persons to possess certain qualities to fulfil job requirements.

A brief discussion on the career choice/development theories of Super (1990), Holland (1985), and Bordin (1990) is presented here to find out what they have to say in the area of career-satisfaction. A separate theory of career satisfaction advocated by Herzberg (1966), is also included in the above discussion.

To begin with, the work of Super will be taken up. He states his theory of career choice and selection in 14 propositions. Propositions 12 and 13 (stated in Chapter 4) are related to career satisfaction. Super believes that career choice is the implementation of one's self concept

and one's efforts at finding outlets of abilities, needs, values, interests, personality traits and self-concepts. The theory suggests possibilities for and the necessity of the individual and the work situation coming together due to his/her search for satisfaction in work and work situation. Hence the work satisfaction will depend upon "establishment in a type of work, a work situation, and a way of life, in which one can play the kind of role that growth and exploratory experiences have led one to consider congenial and appropriate". Super further continues that "the degree of satisfaction people attain for work is proportional to the degree to which they have been able to implement self-concepts".

It may be pointed out that the above propositions are amenable to empirical verification. Informal day to day observations and experiences with people substantiate these propositions.

Holland's theory is based on an assumption that "choice of a vocation is an expression of personality and vocational interests represent the expression of personality in work, hobbies, recreational activities and preferences". He summarises the theory in four statements. Statement no. 3 refers to career satisfaction and goes like this: "People search for environments that will let them exercise their skills and abilities, express their attitudes and values, and take on agreeable problems and roles". The key to work satisfaction and related outcomes like achievement and stability on the job is found in one basic concept "congruence". He contends that "different types flourish in environments that provide the kinds of rewards that are important to them. Holland supports the feasibility of assessing vocational environment by constructing (Holland, 1985) an Environmental Assessment Technique (EAT).

Bordin's psychoanalytic theory is a theory of life development with an emphasis on careers. Some of his propositions refer to achieving the ideal fit between self and work, and of mapping intrinsic motives through capturing life styles or character styles. Bordin accepts the changing nature of personality and thus, as personality changes, different needs emerge, and career may need to change. Later, he changes his original stand on the number or nature of needs to show their influence and on job satisfaction. Bordin's contribution lies in identifying these psychological blocks that take place with career indecision; yet it is difficult to accept or reject his theory in the absence of adequate testing of his hypotheses.

Bordin, himself asserts that there is a heavy accumulation of evidence of close interaction between personality measures and vocational interests and that there can be little doubt that personality plays a part in the work aspects of an individual's life.

Herzberg et al (1966) have developed a theory of career satisfaction as an independent theory of factors affecting work attitudes. His psychological assumptions are that man has two sets of needs — the needs to avoid pain and physical deprivation and need to grow psychologically. The latter is considered more important than the former. He explains that occupational satisfaction and the extent of its satisfaction lie in the degree of fulfillment of the two needs. Later, he identified the need determinants of job satisfaction as achievement, recognition, work itself, responsibility, and advancement but could not logically prove that the lack of these would lead to job dissatisfaction. Herzberg has supported his two-factor theory of work satisfaction and dissatisfaction by researches done by others.

However, it has been pointed out that though Herzberg's theory seems to be a promising approach to a theory of occupational satisfaction, better measures are essential to investigate fully into the theory.

### *Implications for Future Research and Theory Building*

Theories of occupational satisfaction such as Herzberg's, Dawis et al's, etc. if validated adequately, may prove to be of equal help to the career counsellors of today. Psychometrically constructed tests will not only validate the theories but will be able to guide them in the best use of these tests in their work.

Further, stress on the two concepts: 'career satisfaction' and 'work adjustment' has brought into focus the importance of studying an individual in relation to his work in an organisational setting. Work satisfaction and adjustment do not take place in a vacuum but in social and institutional context. From the organisational perspective, job performance of work becomes the prime field of study with its processes of socialization, adjustment, success, and mobility. The question then arises: can vocational and organisational approaches be integrated for the advantage of the individual who is seen first as a potential worker and then as an actual worker. This kind of integrated

approach may help in the simultaneous growth and development in personal and work orientation of individuals. This will also require a new batch of researchers to work on formulating a theory for this integrated approach.

To conclude the above discussions, it may be reiterated that a comprehensive review of the literature is needed before further investigations are made in India. The overall purposes should be:

- (i) Compilation and summarization of what is already known in the areas of career development and work satisfaction and adjustment outside India;
- (ii) Identification of areas that have been adequately investigated in India, but where little analysis and or dissemination of results has taken place;
- (iii) Assessment of the validity and utility of tests and their adaptations, keeping in view the special needs of career development and career counselling.
- (iv) Identification of significant knowledge gaps in Indian researches.

#### *Research Needs on Evaluating Effectiveness of Career Theories in Career Counselling*

It is quite apparent that the theories of career choice and development furnish models of career counselling, for defining goals of career counselling, identifying career choice problems, evaluating methods of counselling, and finally, assessing the outcomes of counselling itself. The expected outcomes of all counselling approaches is an effective career choice and selection resulting in satisfaction and fulfillment in the client, though the specific content of counselling may vary according to specific approach adopted by the counsellor. The counselling contents and process focus either on facilitating a match between individual and job or fostering developmental and decision-making process. The important question here is what leads to indecision in the client. The very fact that there is a large variety of possibilities in the world of work, and there is lack of adequate information about these possibilities combined with inadequate self knowledge has occupied attention of career theorists mainly with trait-factor orientation. The requirement is for planning occupational surveys

and researches leading to organization of such data and working out an empirical classification which will have an inbuilt system of introducing flexibility in the changing socio-economic content. Other theories emphasizing developmental behaviours are amenable to validating of progressive developmental stages delineated by them by using their normative information in dealing with counselling cases.

More research can be planned in the form of action research which will validate effectiveness of counselling outcomes evident in the near future as in making curricular choices as well as long term criteria such as job stability, satisfaction, and achievements.

Research may also be planned to evaluate counselling techniques following from the philosophical assumptions of theories related to the role of the client and/or the counsellor in the counselling process. Approaches advocating the growth processes being facilitated in counselling sessions delegate the responsibility of decision making to the client, evidence of decision making ability acquired in exposure to counselling and the ability to relate oneself to the contextual groups like family, peers, schools, employers, etc. Matching models on the other hand, repose more faith on the counsellor's ability to select and interpret the appropriate tests to be able to help client in wise choices. Action research on comparative studies, the relevance of specific models to various social and racial groups, communities, in various circumstances in the background such as gender-based provisions, special needs, special provisions and discriminatory practices, etc., needs to be taken up.

#### *On Evolving a Career Development Theory in the Indian Setting*

From the evaluation of theories of career-choice and development as against the criteria set out for testing a good theory one can get understanding of the issues involved in it. There is also the indication that not much research work has been done in the areas of career satisfaction. It is, therefore, expected that strengths and weaknesses found in these theories may serve as positive and negative indicators in evolving career choice and development theory or theories in the Indian context.

India holds both an advantageous and disadvantageous position in this regard. She has at her command all the rich and valuable

knowledge built up by these theories and the chequered experiences of the theorists who have worked or are working relentlessly in refining and expanding their respective theories to make them more and more comprehensive in nature. Unfortunately, she is in a disadvantageous position, too, because her research status has not gained such a status from which pedestal she can build a theory of career choice and development. Even facts or data are not found well organised which can lead to systematic research in this direction. Nevertheless, there is a felt need for such a theory development in the Indian setting.

India is a multi-lingual, multi-religious, and multi-ethnic country. Socio-economic imbalances are found from the grass-root level to the state and regional level, yet the country is bound together by a social philosophy guided by democracy, socialism, and secularism. No borrowed model, therefore, can satisfy her needs as the commonalities between socio-economic variables functioning in India and in the countries of the origin of these theories are scarce. Personality behaviours and cultural behaviours differ from country to country.

In an attempt to build a theory of career development, the career psychologists and their associates in India, will have five challenges to face in the following decision-making process: (i) selection of underlying philosophical assumptions that should guide the theory, (ii) preference for the type of model, (iii) choice of the specific groups of people that the model will serve, (iv) appropriate guidelines from the current theories, and (v) well-phased out process in working out the model. Let us look at the assumptions of logical positivism and phenomenology (Brown and Brooks, 1990) from which the selection may be made.

### *Phenomenology*

1. All aspects of the universe are inter-connected; it is impossible to separate figure from ground and subject from object.
2. There are no absolutes, thus, human functioning cannot be reduced to laws or principles, and cause and effect cannot be inferred.
3. Human behaviour can be understood only in the context in which it occurs.

4. The subjective frame of reference of human beings is the only legitimate source of knowledge. Events occur outside human beings. As individuals understand their environment and participate in these events they define themselves and their environment.

### *Logical Positivism*

1. People can be separated from their environment for study and they can be further sub-divided for study.
2. Human behaviour can be objectively observed and measured and operates in a lawful linear fashion; cause and effect can be inferred.
3. The traditional scientific method is the accepted paradigm for identifying facts about human behaviour.
4. The contexts (environments) in which people operate are considered as neutral or relatively unimportant. Thus, the focus of inquiry should be observable actions of human beings.

It is evident from the assumptions that when theories are compared on the basis of these characteristics it is found that all of them except the theory of Miller-Tiedeman and Tiedeman are based on logical positivism. Judging the present Indian socio-economic situation and the research status gained in the field of career development it is suggested that Indian psychologists' philosophical approach to career development theory may rest on logical positivism; and when fresh socio-cultural needs arise, the philosophical shift may be made accordingly.

The ultimate goal to be kept in view should be to build a career development theory or theories; but the immediate and intermediate aims of the Indian career psychologists may be directed towards evolving theories of career choice and selection and theories of career satisfaction and success. An endeavour of evolving career development theory or theories may be shelved till the time when instruments of measurement are adequately available and validated and researchers become well accomplished in their professional work in this specialised field.

In India, today, women and minority groups form quite distinct sections of the population at the national, regional, state, district, and

village levels in terms of their knowledge, skills, and attitudes developed towards work. Gender biases, social class biases, ethnic biases, are very sharp even today. It is the endeavour of the Central and State governments to minimize these differences or discriminations by means of social control (enacting laws) in order to fulfil the constitutional directives. Thus, formulating a theory/theories of a global nature may not reflect career needs, aspirations, and the process of decision making of these groups. If it is possible and feasible to build any distinct career choice models for them and also to implement these to help in their career choice, it will give a big boost to bringing them into the mainstream of national life in which the government is presently engaged. Thus, a research attempt in this direction will enhance and reinforce governmental efforts in providing social justice to all segments of the people. Finally, it can be expected that this type of research undertaking may receive governmental favour and support.

It is, therefore, thought expedient to give additional weightage to theory building in two aspects of career development: (i) theories of career choice and selection for women and minority groups, and (ii) theories of career satisfaction and success for women and minority groups.

Out of all the theories evaluated earlier, Indian career psychologists may consider whether Trait and Factor theory, Holland's theory, and Super's theory can offer some guidelines to them. Trait and Factor theory and Holland's theory are basically theories of career choice; but Super's theory is the theory of career development. The significant guidelines may stem out of the following attributes and characteristics of each theory.

1. These three theories have identified and defined the variables or constructs in clear operational terms.
2. They have developed objective standardised measuring instruments which have proved their worth in validating the theories and in their application to practice.
3. Holland's Self-Directed Instruments have also stood the test of time.
4. Their tests have also proved to be useful for selection of personnel.

5. These theories have laid great emphasis on the process of choice though these have not explained this process in their respective theories.
6. Both Trait and Factor theory and Super's theory have placed significant stress on the importance of career counselling, career exploration experiences, and individual counselling for career development.
7. Super's intensive and multidimensional work has thrown further light on the use of non-directive in addition to directive technique of counselling. He has advocated multi-media approach in counselling, the role of self-concept in career choice, the inter-relationship between career choice role and other life roles, and finally, the process of decision-making. These guidelines will serve the Indian career psychologists to gain a sure and firm footing to start their work in theory building in career development.

It is essential that before embarking on a huge project like theory building, well planned readiness programme may be worked out and then implemented.

The first phase of this plan of action may deal with the awareness programme in terms of:

- (i) needs assessment of students, staff, and the community;
- (ii) staff development in the form of in-service education for counsellors, educators, and community specialists in areas such as (a) developmental counselling, (b) decision-making process, (c) strategies to cope with obstacles found in socio-political system, and (d) refinement of measuring tools used in vocational guidance at present.

The second phase may deal with career development programmes in the areas of career choice and selection in terms of:

- (i) a career education curriculum in schools; and
- (ii) a career exploration programme to be included in the existing school curriculum.

These two programmes have to be scientifically prepared with the help of R&D techniques of research. The research setting may consist of Navodaya Schools (for minority groups) and State boys' and girls'

schools at the District level in order to collect relevant data of minority and general category students.

The question of administrative and research support may be solved by giving the responsibility of sponsorship and monitoring the programmes to DIETs in close cooperation and guidance of SECRTs at the state level and NCERT at the national level. Great efforts may be made to involve personnel from industry, business, and commerce to augment the effectiveness and efficacy of efforts. Further, university departments of psychology, sociology, and education, must be brought under this same umbrella.

For evolving theories of career satisfaction of women and the minority groups there is a need to study women and men from minority groups already employed in various categories and levels of work. Their interests and satisfaction and adjustment level may be assessed. Computerised devices may help in the easy and quick analyses of multi-variate data. In these investigations, Institutes of Management Studies and University departments of various disciplines must work hand in hand, because of the "newness" of the subject of adult psychology and the adult motivational devices, their interests, etc. involved in these studies.

The final phase of the theory building may consist of the following: observe the facts; systematize them; formulate them into testable hypotheses; state these as propositions; integrate them to make a statement of a theory which is put to test; and verify against facts.

No doubt, it is a gigantic task which needs the helping hands of so many experts from various disciplines. The task will be made easy, quick and rewarding by formulating a National Project (Plan project) which may be initiated and sponsored by the Ministry of Human Resource Development, National Commission for Minorities, National Commission for Women etc. It is needless to say that National Council of Educational Research and Training should act as the Technical Wing of these national bodies to plan and implement it.

A final word may be added here in a lighter vein in this connection that no research effort goes waste in any field of human endeavour as serendipity also plays its powerful role in finding new paths for actions.

*Needed Research Directions for the Future (with special reference to India)*

Needed research directions in career development have been identified on many fronts, such as future orientations of phenomenological perspectives as a basis for the theories, follow-up strategies of current theories, improvement of theories as a result of deficiencies found in them, emergence of new theories, ever growing importance of validating older measuring tools, construction of new tools in career counselling research, and structuring and restructuring of career development programmes in schools based on career theories.

The following are some of the important foci: Firstly, the research findings of Collin and Young (1986) as stated by Brown and Brooks (1990) are that "though position of logical positivism will remain central in the near future, it seems likely that more theories would be articulated that either reflect some of the assumptions of phenomenology or are based solely on these assumptions". Miller-Tiedeman and Tiedeman had already suggested that "the theories stemming out of logical positivism should expand to include individual perspectives as he or she grows and develops". In the same vein the sociological perspectives (Hotchkiss and Borow, 1990) have recommended the integration of psychological variables with sociological thinking to account for the diverse phenomena related to career development. Further, Collin and Young's research findings point out that a great number of qualitative researches have been started based on the phenomenological system.

Secondly, the existing theories of career choice and development need further research investigations to change and modify if they are to function to the maximum. Osipow (1983) has indicated that "both the relationship of traits to career-decision making and the power of decision-making need explanation" by further research. More researches are needed to disprove the gender-bias of Holland's Self-Directed materials. Roe's contentions about the influence of childhood in career choice does not have the backing from the present day career psychologists. Unless the future researches support this, Roe's theory may have an uncertain future. Super (1990) has made a befitting self-analysis of his theory and its future by saying "What I have contributed is not integrated comprehensive and testable theory but rather

'segmental theory' (Super, 1969, pp. 8-9), a loosely unified set of theories dealing with specific aspects of career development taken from developmental, differential, social, personality, and phenomenological psychology and held together by self concept and learning theory. Each of these segments provides testable hypotheses and in due course I expect the testable and refined segments to yield an integrated theory". Without further analyses of other not so effective theories it may be suggested that the follow-up strategies of these current theories mentioned above may need to focus on the following: first, to integrate sociological perspectives; second, to explain the decision-making process, and third, to include the developmental stages of personality (from early childhood to adolescence) and their bearing on career choice and selection at the adolescent stage.

Thirdly, it is of interest to note that new theories are emerging as a result of deficiencies found in the earlier theories. The recent directions in career development research are related to the study of women, racial and ethnic minorities, the influence of other life roles on career choice and work adjustment and to the study of interaction between socio-cultural and psychological variables in career choice and development. The earlier theories either overlooked or neglected or found it rather difficult to study these variables. A few recent attempts may be cited here to show the direction of research. Hackett and Betz's (1981) Self-Efficacy Theory explains the vocational behaviour of women as different from men. Their theory is based on the theory of Bandura (1977). Gottfredson's (1981) Model of occupational aspirations is a developmental theory of occupational aspirations for men and women. Astin's (1984) Need Based Socio-psychological Model describes the career choice process of women and their career aspirations. It is also a model applicable to men. Brown's (1988) Life-Role Development approach "views people more holistically and recognises the inter-relationships of subgroups (for example, family and work)".

Fourthly, the extension of knowledge in the use of different methodologies and the expansion of number of models do give an indication that greater and greater emphasis is now being laid on the construction of more, new, and better measurement tools to be used in research in this area. It has been seen that empirical support was always

given by tests and inventories to the theorists to test their theories. There is no denying the fact that the theories which had the best support from evaluating tools survived and remained in the forefront. Both supporters and critics alike used tests to attain their ends. Besides these, there is a new thinking whether tests can replace interview, a subjective tool of research. Some other defects have also been detected in the gender-bias found in the previous theories. A serious attention is now being given towards removing this shortcoming in tests. For all these reasons the importance of measuring instruments of all kinds is gaining ground and these are becoming the focal points of research in career development.

Fifthly, it must be recognised that career counselling has assumed a very complex role. A career counsellor's work has become varied, yet is quite intense in character. It has also been suggested that for better career counselling, a counsellor needs to be helped by a team of experts from different career fields, and realistic counselling can only take place on the site. In a counselling session, the help that is given to the counsellee is always through the medium of information - personal-social, educational and training facilities, and occupational. All career development models have also recognised the important use of occupational information in counselling. For instance, Trait and Factor theory lays equal emphasis on self-knowledge and occupational knowledge in career counselling. Super, too, states that he regards careers information as one dimension of career maturity. Mitchell and Krumboltz (1990) also stress that "Seeking and using occupational information is an important task approach still". Holcomb and Anderson's study (1977) found that very little research has been done in the area of occupational information. Frederickson (1982) found out that occupational information was not adequately used in counselling. Krumboltz also places great importance on the information seeking process that the client employs in making his career choices. Two aspects are still not clear: how client processes the information and the effect of occupational information on the client. Only research and more research can answer the following: What occupational information is necessary; how it can be used when occupational information should be used in counselling; and with what purpose and with what result. The future career counselling research, therefore will

primarily aim at these two very important dimensions: occupational information in career counselling (what, why, how, and when), and the use of decision making process for making career choice in career counselling. These types of research approaches will greatly enhance the capabilities of a career counsellor.

Finally, the impact of theories on career development programmes at school has been examined. Super's theory has given a clear description of the nature of career development programmes (including students and staff at the university and also staff of the organisation), whereas Williamson (1965) has provided a guidance programme for schools. Super (1990) has recommended three types of programmes; one, designing and monitoring of a development or growth-producing environment and curriculum; two, group activities designed to foster career development, self exploration and career exploration projects; and three individual counselling. Ginzberg's (1951, 1984) and Super's models have indicated career-oriented stages of human development from early age of high school stage. Many models may be found of career education curriculum in U.S.A. India is on the threshold of evolving one (school-based) though belated. It is apparent from the 10+2 structure of school education with emphasis on work-experience and vocationalization that research in this direction is a forewarning for the near future. Research and development (R&D) approach in evolving a total school curriculum of career education, and self exploration and occupational exploration projects for primary, elementary, and secondary stages of school education are the primary need for Indian schools today. This approach will really stimulate further research and help in introducing much needed innovative practices in schools to gear up career development as an explicit educational aim for our country.

## BIBLIOGRAPHY

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- Akhilesh, K.B., (1991), Vocational choice patterns of urban adolescents: A case study. *The Indian Journal of Social Work*, 52:2.
- Allport, G.W., Vernon, P.E., and Lindzey, G., (1970), *Study of Values*. Boston: Houghton Mifflin.
- Anastasi, A., (1993), Evolving trait concepts. *American Psychologist*, 38, 175-184.
- Anandlakshmy, S., (1971-76), Development process: Vocational aspirations and adjustment. *A Survey of Research in Psychology*, ICSSR, Part 1, 182-83.
- Anandraj, H., (1985), Aspirations for vocation and some influencing factors. *Child Psychiatry Quarterly*, 18:3, 90-94.
- Anderson, V.V., (1929), *Psychiatry in Industry*. New York: Cambridge University Press.
- Ansari, S.A., (1985), Occupational preferences as a function of sex differences. *Perspectives in Psychological Research*, 8:2, 66-67.
- Arora, R.K., (1985), Students' problems, self-concept and level of aspiration: A comparative study, *Indian Educational Review*, 20:3, 12-22.
- Arthur, M.B., Hall, D.T., Lawrence, B.S., (Eds), (1980), *Handbook of Career Theory*. New York: Cambridge University Press.
- Astin, H.S., (1984), The meaning of work in women's lives: A Socio-psychological model of career choice and work behaviour. *Counselling Psychologist*, 12:4, 117-126.
- Atkinson, J.W., (1958), *Motives in Fantasy, Action and Society*. Princeton: Van Nostrand.
- Atkinson, J.W., (1964), *An Introduction to Motivation*. New York: D. Van Nostrand.
- Ayres, A.L., (1980), *Self-Efficacy Theory: Implications for the Career Development of Women*. Ph.D., Ohio State University.
- Baer, M.F., and Roeber, E.C. (1958). *Occupational Information: Its Nature and Use*. Chicago: Science Research Associates.

- Bakke, E.W., (1953), *The Fusion Process*, New Haven; Conn. Labour and Management Centre, Yale University.
- Bandura, A., (1977), Self-efficacy theory: Toward a unifying theory of behavioural change, *Psychological Review*, 84, 191-215.
- Bandura, A., (1982) Self-Efficacy theory in human agency, *American Psychologist*, 37, 122-47.
- Bandura, A., (1986) *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, N.J.: Prentice Hall.
- Bartlett, W., (1968), Vocational maturity and personality variables of manpower trainees, *Vocational Guidance Quarterly*, 17, 104:108.
- Bayati, J.L., (1972), Factors determining the occupational choices of adolescents, *Indian Journal of Psychometry and Education*, 3:1, 38-42.
- Beilin, H., (1955), The application of general developmental principles to the vocational area, *Journal of Counselling Psychology*, 2, 53-57.
- Benavot, A., (1989), Education, gender, and economic development: A Cross-national study, *Sociology of Education*, 62 (Jan), 14-32.
- Berdic, R.F., (1944), Factors related to vocational interests, *Psychological Bulletin*, 4:3, 137-154.
- Betz, N.E., (1991), Twenty years of vocational research: Looking back and ahead, *Journal of Vocational Behaviour*, 39, 305-310.
- Betz, N., (1993), Women's career development in F.L. Denmark and M.A. Palude (Eds), *Psychology of Women: A Handbook of Issues and Theories*, Greenwood Press/Greenwood Publishing Group Inc: West Post.
- Betz, N.E., (1994), Self-concept Theory in career development and counselling, *Career Development Quarterly*, 43: 2, 32-42.
- Betz, N., and Fitzgerald, L.F., (1987), *Career Psychology of Women*, San Diego, C.A.: Academic Press.
- Bhalla, S., (1993), Patterns of employment generation in India, *Indian Journal of Labour Economics*, 36:4.
- Bhanot, S.N., (1985-86), Development of India and Japan: The role of education, *Journal of Indian Education*, 2, 1-6.
- Bhatnagar, H., (1983), *A Study of Occupational Choices of Adolescent Girls and Factors Influencing Them*. Unpublished Ph.D. Thesis, Himachal Pradesh University.
- Bhatnagar, J.N., (1979), *An Investigation into the Values, Aspirations and Personality Traits of Adolescents of Rajasthan*, Unpublished Ph.D. Thesis, Sukhadia University.
- Bhargava, M., and Dhir, P., (1980), A comparative examination of need patterns of aspirant girls within realistic and non-realistic zones, *Perspectives in Psychological Researches*, 3, 25-26.

- Bhargava, V., (1966), *A Study of the Vocational Aspirations of Adolescent Girls of Class X*, M.Ed. Thesis, Udaipur University.
- Bhargava, V.P., and Singh, L., (1968), Determinants of educational choice behaviour of adolescents (13-16). *Journal of Psychological Researches* 12:3, 99-103.
- Bhote, A.K., (1985), Work education in India: Experiences and plans, *Journal of Indian Education*, 21:5, 18-24.
- Blocher, D.H., (1973), Social change and the future of vocational guidance. In H. Borow (ed), *Career Guidance for a New Age*. Boston: Houghton Mifflin.
- Blocher, D.H., (1980), Some implications of recent research in social and developmental psychology for counselling practice, *The Personnel and Guidance Journal*, 58:5, 334-36.
- Bloom, B.L. (1985) A factor analysis of self-report measures of family functioning. *Family Process*, 24, 225-239
- Blustein, D.L., and Phillips, S.D., (1988), Individual and contextual factors in career exploration, *Journal of Vocational Behaviour*, 33:2.
- Blumberg, R.L., and Dwaraki, L., (1980), *India's Educated Women: Options and Constraints*, Delhi: Hindustan Publishing Corporation.
- Boardman, S.K., Charles, C.H., and Sandra, V., (1987), Successful Women: A Psychological investigation of family class and education In. B.A. Gutek and L. Laurie, *Women's Career Development*, New Bury Park, California; Sage.
- Bolles, R.N., (1981), *The Three Boxes of Life*, Berkeley, Calif. : Ten Speed Press.
- Boocock, S.S., (1967), The life career game, *Personnel and Guidance Journal*, 45; 8-17.
- Boordin, E.S., (1990), Psychodynamic model of career choice and satisfaction. In D. Brown and L. Brooks (eds), *Career Choice and Development*, San Fransisco: Jossey Bass Publishers.
- Borow, H., (1964), *Man in a World of Work*, Boston: Houghton Mifflin.
- Borow, H., (1973), *Career Guidance for a New Age*, Boston: Houghton Mifflin.
- Borow, H., (1966), Development of occupational motives and roles. In L.W. Hoffman and M.L. Hoffman (eds), *Review of Child Development Research*, Vol. 2, New York: Russel Sage, 373-422.
- Bowes, P., (1982), What is Indian about Indian Philosophy. In S.S. Rama Rao Pappu and R. Pulligandla (Eds), *Indian Philosophy: Past and Future*, Delhi: Motilal Banarsi Dass.
- Brachter, W.T., (1982), The influence of the family on career selection: A family systems perspective, *Personnel and Guidance Journal*, 61, 87-91.

- Bradley, R.H., Caldwell, B.M., and Rock, S.L., (1988), Home environment and school performance: A ten year follow-up and examination of three models of environmental action, *Child Development*, 59, 852-867.
- Bradley, R.W., (1982), Using birth order and sibling dynamics in career counselling, *The Personnel and Guidance Journal*, 01:1.
- Brandstadtaar, J., (1984), Action development and development through action, *Human Development*, 27, 115-119.
- Broderick, C.B., (1993), *Understanding Family Process*, New Delhi: Sage Publications.
- Bross, L.D., (1953), *Design for Decision*, New York: MacMillan.
- Brown, D., (1970), Students' Vocational Choice: A Review and Critique, *Guidance Monograph Series*, No. 4, Boston: Houghton Mifflin.
- Brown D., (1984), Trait and Factor theory. In D. Brown and L. Brooks (Eds), *Career Choice and Development, Applying Contemporary Theories in Practice*. San Francisco: Jossey Bass.
- Brown, D., (1988), Life-Role Development and Counselling, Paper presented at the meeting of the *National Career Development Association*, Orlando Fla.
- Brown, D., & Brooks, L., (Eds), (1990), *Career Choice and Development* (2nd ed), San Franscisco: Jossey Bass Publishers.
- Brown, D., and brooks, L., (1990), Introduction to Career Development: Origins, Evolutiona and Current Approaches. In D. Brown & L. Brooks (Eds), *Career Choice and Development*, San Franciscos: Jossey-Bass Publishers, 1990.
- Buehler, C., (1933), *Der menschliche Lebenslangals*, Psychologisches Problem, Leipzig: Hirza.
- Burt, Sir Cyril., (1961), *The Backward Child*, (5th ed), London: University of London.
- Canfield, A.A., (1977), *Learning Styles Inventory*, Plymouth, Mich: Humanics, Inc.
- Campbell, D.P., and Hansen, J.C., (1981), *Manual for the SVIB-SCII*, Stanford, Calif: Stanford University Press.
- Card, J.J., Goodstadt, B.E., Gross, B.E., and Shauner, W.M., (1975), *Development of a ROTC/Army Career Commitment Model*, Palo Alto, California; American Institute for Research.
- Carnoy, M., (1974), *Education as Cultural Imperialism*, New York: David McKay Co.
- Carter, H.D., (1940), The development of vocational attitudes, *Journal of Consulting Psychology*, 4, 185-191.
- Centers, R., (1949), *The Psychology of Social Classes*, Princeton, N.J.: Princeton University Press.

- Chadha, S.S., (1979), *A study of some psychological and social factors as related to vocational aspirations of rural and urban high school children*, Unpublished Ph.D. Thesis, Punjab University.
- Chand, H., (1979), *Correlates of Vocational Maturity*. Unpublished Ph.D. Thesis, Punjab University.
- Chartrand, J.M., and Camp, C.C., (1991), Advances in the measurement of career development constructs: A twenty year review, *Journal of Vocational Behaviour*, 39, 1-39.
- Chatterji, P.S., (1983), Academic group differences in intelligence among intermediate college students, *Indian Journal of Psychology*, 58, 81-87.
- Chatterjee, J. and McCarrey, M., (1991), Sex role attitudes, values and instrumental expressive traits of women trainees in traditional and non traditional programmes. *Applied Psychology: An International Review*, 40, 281-297.
- Chopra, S.L., (1967), Parental Occupation and academic achievement of high school students in India. *Journal of Educational Research*, 60, 359-363.
- Chopra, S.L., (1984), Socio-economic background and occupational aspirations. *Indian Educational Review*, April, 1984, 99-105.
- Chaudhry, S., (1989), Occupational level and job satisfaction. *Indian Journal of Applied Psychology*, 26:2.
- Chauhan, D.S., (1986), Education and the social process, *Perspectives in Education*, 2:4, 239-248.
- Chauhan, V., (1975), A study of vocational maturity in relation to extraversion and realism. *Journal of Psychological Research*, 21:3, 87-89.
- Chusmir, L.H., (1983), Characteristics and predictive dimensions of women who make non-traditional vocational choices. *Personnel and Guidance Journal*, 62:1, 43-48.
- Clarke, K., Gelatt, H.B., and Levine, L., (1965), A decision making paradigm for local guidance, *Personnel and Guidance Journal*, 44, 40-51.
- Collin, A., and Young, R.A., (1986), New dimensions for theories of career, *Human Relations*, 39, 337-858.
- Cook, D.R., and Singh, V.P., (1975), Reasons for choosing optional subjects in the University. In R.P. Singh and D.C. Upreti (eds), *Pressures on Access to Secondary Education and Choice of School Subjects*, New Delhi: NCERT.
- Cormier, L., and Hackney, H., (1987), *The Professional Counsellor*, Englewood Cliffs, New Jersey: Prentice Hall.
- Crites, J.O., (1961), A model for the measurement of vocational maturity, *Journal of Counselling Psychology*, 8, 255-259(b).
- Crites, J.O., (1969), *Vocational Psychology*, New York: McGraw Hill.

- Crites, J.O., (1978), *Career Maturity Inventory*, Monterey, Calif: CTB/McGraw Hill.
- Crosby, F., (1982), *Relative Deprivation and Working Women*, New York: Oxford University Press.
- Dabir, D., and Pant, K.L., (1988), A study of vocational aspirations and aptitudes among the school going youths, *Journal of Educational Research and Extension*, 25:2, 79-84.
- Dahiwale, S.M., (1989), Occupational mobility in an industrial urban setting, *The Indian Journal of Social Work*, 1:2, 213-225.
- Das, S.L., (1989), Peer influence and educational aspiration of secondary school students: A study in relation to their academic achievement, *Dissertation Abstracts International*, 50:2.
- Davey, F.H., and Stoppard, J.M., (1993), Some factors affecting the occupational expectations of female adolescents, *Journal of Vocational Behaviour*, 43, 235-250.
- Davidson, P.E., and Anderson, M.D., (1937), *Occupational Mobility in an American Community*, Palo Alto: Standard University Press.
- Dawis, R.V. and Lofquist, L.M., (1984), *A Psychological Theory of Work Adjustment*, Minneapolis: University of Minnesota.
- Daya Krishna, (1991), *Indian Philosophy: A Counter Perspective*, Delhi: Oxford University Press.
- Deborah, D.G., Cooper, C.R., Grotevant, H.D., Hansen, J.C., Scarr, S., and Weinberg, R.A., (1994), Genetic and environmental influences on vocational interests assessed using adoptive and biological families and twins reared apart and together. *Journal Vocational Behaviour*, 44, 263-278.
- Desai, A.N., (1974), Aspiration and value preference of rural, urban, and overseas students in making occupational decisions, *Indian Journal of Psychology*, 49:1, 39-46.
- Desai, K.G., (1972), Who should make the vocational choice? *Indian Journal of Psychology*, 47:4, 431-438.
- Desai, U., (1991), Determinants of educational performance in India: Role of home and family, *International Review of Education*, 37:2, 245-265.
- Dhar, C., (1983), *Work Values of Adolescent Boys: An Exploratory Study*, New Delhi: National Council of Educational Research and Training (NCERT).
- Dhillan, P.K., and Bindiya, B., (1983), Academic achievement and emotional security in relation to choice of academic course. A comparative study. *Indian Journal of Psychology*, 58, 1-4.
- Dinkmeyer, D.C., Pew, W.L., and Dinkmeyer, D.C., (1979), *Adlerian Counselling and Psychotherapy*, Monterey, Calif: Brooks/Cole.

- Dillard, J.M., (1978), Socio-economic background and the career maturity of black youths, *Vocational Guidance Quarterly*, 25 65-68.
- Dusek, J.B., (1991), *Adolescent Development and Behaviour*, New Jersey: Prentice Hall.
- Dutta, Roy, D., (1994), Relative importance of personality factors in discriminating four occupational groups, *Indian Journal of Applied Psychology*, 31:1, 34-38.
- Durall, E.M., (1977), *Marriage and Family Development*, Philadelphia, J.B. Lippincoll Company.
- Dvorak, B.J., (1947), The new U.S.E.S. General Aptitude Test Battery, *Journal of Applied Psychology*, 31, 372-376.
- Dysinger, W.S., (1950), Maturation and vocational guidance, *Occupations*, 29, 198-201.
- Edwards, A.M., (1943), *Comparative Occupational Statistics for the United States, 1870-1940*, Washington, D.C.: Government Printing Office.
- Ejekiel, M., (1975), Pressures on access to secondary education and choice of school subjects: A study in Indian schools. In R.P. Singh and D.C. Upreti (Eds.), *Pressures on Access to Secondary Education and Choice of School Subjects*, New Delhi: NCERT.
- Elder, G.H. Jr., (1971), *Adolescent Socialization and Personality Development*, Chicago: Rand McNally.
- Elutain, K.S., (1979), A study of career maturity of freshmen and seniors at selected high schools in Alaska, *Dissertation Abstracts International*, 12-A, 39, 6409.
- Employment Survey of the Alumni of Delhi University, (1958)*, New Delhi: A Collaborative Effort of Delhi University, Ministry of Labour, and Planning Commission.
- Erikson, E.H., (1950), *Childhood and Society*, New York: W.W. Norton.
- Erikson, E.H., (1959), Identity and the life cycle, *Psychological Issues*, 1, 1-171.
- Erikson, E.H., (1968), *Identity: Youth and Crisis*, New York: W.W. Norton.
- Farmer, H.S., (1978a), Why women choose careers below their potential. In H.L. Sunny and R.S. Rapoza (Eds). *Career Development and Counselling of Women*, Springfield, 12: Charles, C. Thomas.
- Farmer, H.S., (1978b), Career counselling implications for both the lower social class and women, *Personnel and Guidance Journal*, 56, 467-471.
- Fassinger, R.E., (1985), A Causal Model of Career Choice in College Women. *Journal of Vocational Behaviours*, 27, 123-153.
- Fassinger, R.E., (1987), *The Testing of a Model of Career Choicee in Two Populations of College Women*. Unpublished doctoral dissertation, Ohio State University.

- Ferster, C.B., and Skinner, B.F. (1957) *Schedules of Reinforcement*, East Norwalk, Conn.: Appleton-Century-Crofts.
- Fitzgerald, E.F., and Crites, J.O., (1980), Toward a career psychology of women: What do we know, what do we need to know? *Journal of Counselling Psychology*, 27, 44-46.
- Flanagan, J.G., (1954), The critical incident technique, *Psychological Bulletin*, 51, 327-358.
- Foud, N.A., (1994), Annual Review 1991-93: Vocational choice; decision making; assessment and intervention. *Journal of Vocational Behaviour*, 45:2, 125-170.
- Forester, D.B., (1975), Initial occupational pattern of scheduled caste graduates in India, *New Frontiers in Education*, 5:2, 49-65.
- Frederickson, R.H., (1982), *Career Information*. Englewood Cliffs, N.J.: Prentice Hall.
- Freud, S., (1962), *Civilization and its Discontents*, Editor and translator James Strachey, New York: W.W. Norton.
- Gagne, R.M., (1965), *The Conditions of Learning*. New York: Hall Rinehart & Winston.
- Gandhi, M.K., (1958), *Women*, Ahmedabad: Navjivan Publishing House.
- Gangrade, K.D., (1973), *Crisis of Values: A Study in Generation Gap*, New Delhi: Chetna Publications.
- Gangrade, K.D., (1975), *Crisis of Values: A Study in Generation Gap*, New Delhi: Chetna Publishers.
- Gardner, J.W., (1961), *Excellence*, New York: Harper & Row.
- Gardner, J.G., (1968), *No Easy Talk*, New York: Harper & Row.
- Garg, P.K., and Parikh, I.J., (1976), *Profiles in Identity: A Study of Indian Youth at Crossroads of Culture*; New Delhi: Vision Books.
- Gaur, J.S., (1973), *A Study of Factors Affecting the Level of Occupational Aspirations of High School Boys of Delhi*, Unpublished Ph.D. Thesis, I.I.T., Delhi.
- Gaur, J.S., and Mathur, P., (1978), Effect of personality factors on the level of occupational aspiration of higher secondary school students of Delhi. A study of sex differences. *Asian Journal of Psychology & Education*, 3:2, 1-14.
- Gaur, J.S., Thukral, C.M., Jain, V.K. and others, (1987), *Psychological Basis of Educational & Vocational Development of Scheduled Caste Students*, New Delhi. National Council of Educational Research and Training (mimeographed ERIC Report).
- Geysbers, N.C., and Moore, E.J., (1974), Beyond Career Development—Life Career Development, *The Personnel and Guidance Journal*, 53, 647-52.
- Geysbers, N.C. and Moore, E.J., (1975), Beyond Career Development—Life Career Development, *The Personnel and Guidance Journal*, 53, 647-52.

- Geysbers, N.C., and Moore, E.J., (1981), *Improving Guidance Programs*, Englewood Cliff, S.N.J.: Prentice Hall.
- Geysbers, N.C., and Moore, E.J., (1987), *Career Counselling: Skills and Techniques for Practitioners*, Englewood Cliffs, New Jersey: Prentice Hall.
- Ghadially, R., and Kazi, K.A., (1979), Attitudes towards sex roles, *Indian Journal of Social Work*, 40, 65-71.
- Ghosh, R., and Zachariah, M. (Eds), (1987), *Education and the Process of Change*, New Delhi: Sage Publications.
- Ginzberg, E., Ginsburg, S.W., Axelrad, S., and Herma, J.L., (1951), *Occupational Choice: An Approach to a General Theory*, New York: Columbia University Press.
- Ginzberg, E., (1966), *Life Style of Educated American Women*, New York: Columbia University Press.
- Ginzberg, E., (1972), Toward a theory of occupational choice: A re-statement, *Vocational Guidance Quarterly*, 20:3, 169-176.
- Ginzberg, E., (1984), Career development. In D. Brown; L. Brooks and Associates (eds.), *Career Choice and Development: Applying Contemporary Theories to Practice*, San Francisco: Jossey-Bass.
- Goldberg, P., (1968), Are women prejudiced against women? *Transaction*, 28-36.
- Goldin, P.C., (1969), A review of children's reports of parent's behaviour, *Psychological Bulletin*, 71, 222-236.
- Gore, M.S., (1977), *Indian Youth: Process of Socialization*, New Delhi: Vishwa Yuvak Kendra.
- Gottfredson, L.S., (1981), Circumscription and comprise: A developmental theory of occupational aspirations, *Journal of Counselling Psychology Monograph*, 28, 545-579.
- Gottfredson, G.D., Holland, J.L., and Ogawa, D.K., (1982), *Dictionary of Holland Occupational Codes*, Palo Alto, Calif: Consulting Psychologists Press.
- Grewal, J.S., (1971), *A Study of Educational Choices and Vocational Preferences of Secondary School Students in Relation to Environmental Process Variables*, Ph.D. Thesis, Vikram University.
- Grewal, J.S., (1980), *Vocational Environment and Educational and Occupational Choices*, Agra, National Psychological Corporation.
- Gribbons, W.D., & Lohnes, P.R., (1964), Relationship among measures of vocational planning, *Journal of Counselling Psychology*, 11:1, 13-19.
- Gribbons, W.D., & Lohnes, P.R., (1968), *Emerging Careers*, New York: Teachers College Press.

- Griffin, K.B., and Bros, J.L., (1970), *Planning Development*, Mass: Addison Wesley Publishing Co.
- Grotevant, H.D., and Cooper, C.R., (1985), Patterns of interaction in family relationships and the development of identity exploration in adolescence, *Child Development*, 56, 415-428.
- Grotevant, H., and Thorbecke, W., (1982), Sex differences in styles of occupational identity formation in late adolescence, *Developmental Psychology*, 18, 396-405.
- Grotevant, H.D., and Cooper, C.R., (1988), The role of family experience in career exploration: A life-span perspective. In P.B. Balties; D.C. Featherman; & R.M. Lerner (Eds.), *Life Span Development and Behaviour*, Hillsdale, N.J.: Erlbaum.
- Grover, S., (1981), *Parental Aspirations as Related to Personality and School Achievements of Children*, Ph.D. Thesis, Jaipur University.
- Gulati, J.S., (1975), *The Changing Occupational Pattern*, New Delhi: National Council of Educational Research and Training.
- Gulati, J.S., (1978), *Occupational Selection and Educational Preparation*, New Delhi: National Council of Educational Research and Training.
- Gupta, A.K., and Sharma, S.K., (1991), *Study of patterns of parental preferences in relation to adolescents personality adjustment and achievement*. Jammu Tawi: Institute of Education and Research.
- Gupta, A.K., (1988), *Comparative Profiles of Adolescents with Different Talents in Terms of Some Selected Variables*, Research Project-Jammu Tawi: Model Institute of Education and Research.
- Gupta, N., (1986), Career maturity of school students: A study of related factors, *Indian Educational Review*, 22:2, 64-69.
- Gupta, N., (1989), *Career Maturity Inventory Manual* (Indian adaptation, CMI), Agra: National Psychological Corporation.
- Gupta, N., (1991), *Career Maturity of Indian School Students*, New Delhi: Anupam Publications.
- Gupta, S.P., (1975), Pressure on the choice of school subjects. In R.P. Singh & D.C. Upreti (eds), *Pressures on Access on Secondary Education and Choice of School Subjects*, New Delhi: NCERT.
- Gupta, V.P., (1973), Some correlates of occupational choice, *Manas*, 20:1, 33-44.
- Gutek, B.A., & Larwood, L., (Eds), (1987), *Women's Career Development*, Newbury Park, CA: Sage Publications.
- Gutek, B.A., Nakamura, C.V., and Nieva, (1981), The interdependence of work and family roles, *Journal of Occupational Behaviour*, 2, 1-16.
- Hackett, G., (1997), Promise and problems in theory and research on women's career development : Comment on Lucas (1997). *J. Constructivist Psychology*, Vol 10(2), April-June, 184-188.

- Hackett, G., Lent, R.W., and Greenhaus, J.H., (1991), Advances in vocational theory and research. A 20 years perspective. *Journal of Vocational Behaviour*, 38, 3-38.
- Hackett, G., and Betz, N., (1981), A self-efficacy approach to the career development of women. *Journal of Vocational Behaviour*, 18, 326-339.
- Hall, R.H., (1986), *Dimensions of Work*, Newbury Park, Calif: Sage.
- Harmon, L.W., (1977) Career Counselling for Women. In E. Rawlings & D. Carter (Eds) *Psychotherapy for Women*, Springfield, IL: Charles C. Thomas.
- Havighurst, R.J., (1953), *Human Development and Education*, New York: Longman.
- Havighurst, R.J., (1950). *Developmental Tasks and Education*, New York: Longmans Green.
- Havighurst, R.J., (1964), Youth in exploration and man emergent, In H.Borow (ed.), *Man in a World of Work*, Boston: Houghton Mifflin.
- Heckhausen, H., and Beckmann, J., (1990), International action and action slips, *Psychological Review*, 97, 36-48.
- Hendrick, I., (1943a), Work and the pleasure principle, *Psychoanalytical Quarterly*, 12, 311-329.
- Hendrick, I., (1943b), The discussion of the instinct to master, *Psychoanalytic Quarterly*, 12, 561-565.
- Herzberg, F., (1966), *Work and the Nature of Man*, Cleveland: World Publishing.
- Herzberg, F., Mansner, B., Synderman, B.B., (1966), *The Motivation to Work*, New York: John Wiley & Sons Inc.
- Herr, E.L., and Crammer, S.H., (1972), *Vocational Guidance and Career Development in the Schools: Toward a Systems Approach*, Boston: Houghton Mifflin.
- Herr, E.L., (1974), *Vocational Guidance and Human Development*, Boston: Houghton Mifflin.
- Herr, E.L., and Crammer, S.H., (1988), *Career Guidance and Counselling Through The Life Span*, Glenview Illinois: Scott, Foresman.
- Hilton, T.L., (1973), *The Base Year of the National Longitudinal Study of the High School Class of 1972*. Final Report to Dept. of Health, Education and Welfare, National Centre for Educational Statistics, Princeton, New Jersey: Educational Testing Service.
- Hills, J.R., (1964), Decision theory and college choice, *Personnel and Guidance Journal*.
- Hoffman, L.W., (1974), Effects of maternal employment on the child, *Developmental Psychology*, 10, 204-228.
- Hogan, R., Desoto, L.B., and Solano, C., (1977), Traits, tests, and personality research, *American Psychologist*, 32, 255-264.

- Hogan, R., and Nicholson, R.A., (1988), The meaning of personality tests, *American Psychologist*, 43, 621-626.
- Hoppock, R., (1976), *Occupational Information*, (4th ed.), New York: McGraw Hill.
- Holcomb, W.R., and Anderson, W.P., (1977), Vocational guidance research: A five year overview, *Journal of Vocational Behaviour*, 10, 341-346.
- Holland, J.L., (1958), A personality inventory employing occupational titles, *Journal of Applied Psychology*, 42, 336-42.
- Holland, J.L., (1959), A Theory of Vocational Choice, *Journal of Counselling Psychology*, 6, 35-45.
- Holland, J.L., (1966), *The Psychology of Vocational Choice*, Waltham, Mass: Blaisdell.
- Holland, J.L., (1973), *Making Vocational Choices*, Englewood Cliffs, New Jersey: Prentice Hall.
- Holland, J.L., (1977), *Manual for the Vocational Preference Inventory*, Palo Alto, Calif: Consulting Psychologists Press.
- Holland, J.L., (1979), *Professional Manual for the Self-Directed Search*, Palo Alto, Calif: Consulting Psychologists Press.
- Holland, J.L., (1984), *A Theory of Careers, Some New Developments and Revisions*, Paper presented at the American Psychological Association Convention, Toronto, Ontario.
- Holland, J.L., (1985), *Making Vocational Choices: A Theory of Vocational Personalities and Work Environments* (2nd Ed), Englewood Cliffs, New Jersey: Prentice Hall Inc.
- Holland, J.L., (1986), *Manual for the Vocational Preference Inventory*, Psychological Assessment Resources Inc.
- Holland, J.L., Daiger, D.C., and Power, P.G., (1980), Some diagnostic scales for research in decision making and personality: Identity information and barriers, *Journal of Personality and Social Psychology*, 39, 1191-1200.
- Holland, J.L., and Gottfredson, G.D., (1976), Using a typology of persons and environments to explain careers: Some extensions and classifications, *Counselling Psychologist*, 6:3, 20-29.
- Horner, M., (1970), *The Motive to Avoid Success and Changing Aspirations of College Women*, Unpublished Manuscript, Harvard University.
- Hotchkiss, L., and Borow, H., (1990), Sociological perspectives on work and career development. In D. Brown and L. Brooks and Associates, *Career Choice and Development*, San Francisco: Jossey-Bass Publishers.
- Hull, C.L., (1928), *Aptitude Testing*, New York: World.
- Institute of Applied Manpower Research, *Manpower Profile: Year 1993-1994*, New Delhi: IAMR.

- International Labour Office (1975). Equal pay for equal work, *The UNESCO Courier*, March.
- International Standard Classification of Occupations, ISCO-68* Geneva: International Labour Office, Page 9 of Introduction.
- International Standard Classification of Education, (1976) COM/ST/ISCED*, UNESCO.
- Jalota, S., Pandey, R.N., Kapoor, S.D., and Singh, R.N., (1970), *Socio-Economic Status Scale Questionnaire*, New Delhi: The Psycho-Centre.
- Jogawar, V.V., (1976), *Development of Self-Concept in Relation to Some Family Factors at the Adolescence Level*, Ph.D. Thesis, Nagpur University.
- John, M., (1981), *Future Time Perspective, Self-Concept and Vocational Interests of Adolescents*, Unpublished Ph.D. Thesis, Madras University.
- Jones, G.B., Hamilton, J.A., Ganshow, L.H., Helliwell, C.B., and Wolfe, J.M., (1971), *Planning, Developing and Field Testing Career Guidance Programs: A Manual and Report*, Palo Alto, Calif: American Institutes for Research.
- Kakar, S., and Chaudhry, K., (1970), *Conflict and Choice: Indian Youth in a Changing Society*, Bombay: Somaiya Publication.
- Kakar, S., (1971), The theme of authority in social relations in India, *Journal of Social Psychology*, 84, 93-101.
- Kamat, A.R., (1985), *Education and Social Change in India*, Pune: Somaiya Publications Pvt. Ltd.
- Kapoor, P. (1997) Work: Its meaning and socialization in the Indian context. *Trends in Social Science Research*, Vol 4, No. 1.
- Kaur, S., (1992), *Self-Concept and Locus of Control as Predictors of Career Maturity on Sex Subgroups*, Unpublished Ph.D. Thesis, Lucknow University.
- Kanungo, R.N., and Mendonca, M., (1994), *Work Motivation*, New Delhi, Sage Publications India Pvt. Ltd.
- Kapes, J.T., and Mastie, M.M., (eds), (1988), *A Counsellor's Guide to Vocational Instruments*, (2nd ed), Falls Church, Va.: National Career Development Association.
- Kapur, P., (1976), *Marriage and Working Women in India*, New Delhi: Vikas Publications.
- Kapur, P., (1982), *Conflict Between Adolescent Girls and Parents in India*, New Delhi: Vision Books.
- Kashyap, L.D., (1993), Adolescent/youth and family dynamics and development programmes, *Indian Journal of Social Work*, 4:1, 93-107.
- Kathuria, M., (1974), *An Investigation of Some Personality Determinants of Vocational Maturity and Career Indecisiveness*, Unpublished Ph.D. Thesis, Rajasthan University.

- Kaur, P., (1976), *A Career Pattern Study of Higher Secondary Girls of Delhi with Reference to a Career Planning Programme for Them*, Unpublished Ph.D. Thesis, University of Delhi.
- Khan, M.W., (1985), educational and vocational aspirations of hindu and muslim school students: A comparative study, *Indian Educational Review*, October, 66-67.
- Khan, S.A., Tandon, S., Alam, K., (1988), A comparative study of level of aspiration of school going students in relation to their socio-economic status, *Indian Educational Review*, 33:2, 37-40.
- Khare, P.C., (1968), Occupational differences in life values, *Indian Psychological Review*, 71, 104-109.
- Kher, S.V., (1975), The choice of school subjects in secondary schools. In R.P. Singh and D.C. Upreti (eds), *Pressures on Access to Secondary Education and Choice of School Subjects*, New Delhi: NCERT, 139-144.
- Kitson, H.D., (1925), *The Psychology of Vocational Adjustment*, Philadelphia: Lippincott.
- Klein, K.L., and Wiener, Y., (1977), Interest congruency as a moderator of the relationship between job tenure and job satisfaction and mental health, *Journal of Vocational Behaviour*, 10, 91-98.
- Kolb, D.A., (1976), *The Learning Styles Inventory: Technical Manual*, Boston: McBer and Company.
- Korman, A.K., Mahler, S.R., and Omran, K.A., (1983), Work ethics and satisfaction, alienation, and other reactions. In W.B. Walsh and S.H. Osipow (eds), *Handbook of Vocational Psychology*, Vol. 2, Hillsdale New Jersey: Lawrence Erlbaum Associates.
- Krumboltz, J.D., (1979), A social learning theory of career decision-making. In A. Mitchell, G. Jones, and J.D. Krumboltz (Eds), *Social Learning and Career Decision Making*, Cranston, R.I.: Carroll.
- Krumboltz, J.D., and Hamel, D.A. (eds), (1982), *Assessing Career Development*, Mountain View, Calif: Mayfield.
- Kumar, R., (1973), *A Study of Motives for the Vocational Preferences of Adolescents*, Unpublished Ph.D. Thesis, Dayal Bagh, Agra.
- Kumari, R., & Seth, A.S., (1990), Self-esteem, career, and family values of college women, *Journal of Psychological Researches*, 34:3, 177-180.
- Kumari, U.S., and Rao, R.K., (1990), Occupational mobility, *The Journal of Sociological Studies*, 9 (Jan).
- Kuppuswamy, B., (1981), *Socio-Economic Status Scale*, New Delhi: Manasayan.
- Laiyc, P.G., (1995), The Pancha Mahabutras. In Jayant V. Narlikar (Ed.), *Prakrti: The Integral Vision*, Vol. 4, New Delhi: Indira Gandhi National Centre for the Arts.

- Lantos, B., (1943), Work and the instincts, *International Journal of Psychoanalysis*, 24, 114-119.
- Lantos, B., (1952), Metapsychological considerations on the concept of work, *International Journal of Psychoanalysis*, 33, 439-43.
- Lawson, L., (1993), Theory of work adjustment personality constructs, *Journal of Vocational Behaviour*, 43, 46-57.
- Lazarsfeld, P., (1931), *Jugend und Beruf* lena, Germany: Fischer.
- Lee, M.D., and Kanungo, R.N., (1984), *Management of Work and Personal Life*, New York: Praeger.
- Lent, R.W., and Hackett, G., (1987), Career Self-efficacy: Empirical status and future directions (Monograph), *Journal of Vocational Behaviour*, 30, 293-298.
- Lent, R.W., Brown, S.D., and Hackett, G., (1994), Toward a unifying social cognitive theory of career and academic interest, choice, and performance, *Journal of Vocational Behaviour*, 45, 79-122.
- Levinson, D.J., Darrow, C.N., Klein, E.B., Levinson, M.H., and McKee, B., (1978), *The Seasons of a Man's Life*, New York: Knopf.
- Lewin, K., (1951), *Field Theory in Social Science*, New York: Harper & Row, 1951.
- Lewin, K., (1935), *A Dynamic Theory of Personality*, New York: McGraw Hill, 1935.
- Linton, R., (1945), *The Cultural Background of Personality*, East Norwalk, Conn: Appleton-Century-Crofts.
- Lipsett, L., (1962), Social factors in vocational development, *Personnel and Guidance Journal*, 40, 432-437.
- LoCasio, R., (1967), Continuity and discontinuity in vocational development theory, *Personnel and Guidance Journal*, 46, 32-36.
- Loehlin, J.C., and Nichols, R.C., (1976), *Heredity, Environment and Personality: A Study of 850 Sets of Twins*, Austin: University of Texas Press.
- Lofquist, L.H., and Dawis, R.V., (1969), *Adjustment to Work*, East Norwalk, Conn: Appleton Century Crofts.
- Lopez, F.G., (1989), Current family dynamics, trait anxiety, and academic adjustment. Test of family based model of vocational identity. *Journal of Vocational Behaviour*, 35, 76-87.
- Lucas M. (1997) Identity development, career development, and psychological separation from parents: Similarities and differences between men and women. *J. Constituictivist Psychology*, Vol 10(2) April-June 123-132.
- Luckey, E.B., (1974), The Family: Perspectives on its role in development and choice. In E.L. Herr (ed), *Vocational Guidance and Human Development*, Boston: Houghton Mifflin.

- Mahale, M.N., (1987), *The Adolescents: Their Family Situations and Education*, Delhi: Mittal Publications.
- Majumdar, R.K., (1973), Role of occupational orientation and on-the-job experience in the vocational development of disadvantaged youth. *Proceedings of the First Annual Convention of the American Psychological Association*, Montreal: Canada, 8, 791-792.
- Majumdar, R., (1990), A study of the effect of vocational aspiration on academic motivation of the college students, *Journal of Education and Psychology*, 48: 1-2, 75-80.
- Marr, E., (1965), Some behaviours and attitudes relating to vocational choice, *Journal of Counselling Psychology*, 12, 404-408.
- Maslow, A.H., (1954), *Motivation and Personality*, New York: Harper & Row.
- Mathur, M.B., (1966), *A Comparative Study of Levels of Intelligence Among Professional Groups*, Ph.D. Thesis, Aligarh Muslim University.
- Mathur, M.C., (1985), *Factors Influencing the Streaming of Students wth Reference to Their Interests, Learning Style, and Certain Psycho-Social Pressures*, Ph.D. Thesis, Meerut University.
- Mathur, S.G., (1984), *Vocational Needs and Interests of SC/ST Students of Chikhil Taluka and Developing Vocational Guidance Services*, Ahmedabad: NCERT, (An ERIC, NCERT Study).
- Manava, R.N., (1984), A study of attitudes, self-concept, and values of professional and non-professional students and relation of these variables with their achievements, *Indian Educational Review*, 19:3, 77-80.
- McNair, D.A., (1981), A multiple regression analysis using self-concept, parental influences, socio-economic status, degree of certainty, race and sex to predict career maturity, occupational aspirations and occupational expectations, *Dissertation Abstracts International*, 41:8, 3428.
- Mehta, P.H., & Juneja, S., (1969), Birth order, vocational preference, vocational expectation, *Indian Journal of Psychology*, 44:1, 2, 3, 4.
- Mehta, P.H., Pant, D., and Gaur, J.S., (1984), Scholastic ability and socio-economic status in the educational and vocational planning of class XI boys. Paper presented at the *16th Conference of the All India Educational and Vocational Guidance Association*, Bombay.
- Mehta, P.H., Mathur, R.K., & Pant, D., (1987), Influences on level of occupational aspirations of adolescents, *Indian Educational Review*, 21:3, 42-62.
- Mehta, P.H., Bhatnagar, A., and Jain, V.K., (1993), *Psycho-Educational Studies of Tribal Students*, New Delhi: National Council of Educational Research and Training.
- Mehta, P.H., Bhatnagar, A., and Kumar, S., (1989b), Vocational planning among tribal first generation learners of Meghalaya, *Journal of Indian Academy of Applied Psychology*, 15:1, 33-42.

- Miller, D.C., and Form, W.H., (1951, 1964). *Industrial Sociology*. New York; Harper & Row.
- Misra, K.M., (1990), Vocational interests of secondary school students in relation to their sex, residence and socio-economic status, *Journal of Education and Psychology*, 48:1-2, 44-54.
- Mitchell L.K., and Krumboltz J.D., (1990). Social learning approach to career decision making: Krumboltz theory. In D. Brown, L Brooks, and Associates, *Career Choice and Development* Jossey-Bass Publishers.
- Mitra, C.R., (1989), *Education for Self-Reliance*. New Delhi: Wiley Eastern Ltd.
- Mohan, S., (1989), *National Seminar on Career Guidance of Girls—A Report* (Mimeo graphed), New Delhi: NCERT.
- Mohan, S., Gupta, N., Jain, V.K., (1990), *Vocational Students' Career Behaviour and Their Adjustment in Courses at +2 Stage*. New Delhi: National Council of Educational Research and Training (Mimeo graphed Report).
- Mohan, S., (1991), Career Development of the Girl Child, *Indian Council for Child Welfare News Bulletin*, 39:1, 24-27.
- Mookerji, R.K., (1951), *Ancient Indian Education*, Delhi: Motilal Banarsi Dass.
- Murphy, G., (1947), *Personality: A Bio-Social Approach to Origins and Structure*, New York: Harper & Row.
- Murray, H.A., (1938), *Explorations in Personality*, New York: Oxford University Press.
- Muthayya, B.C., (1962), Level of aspiration and intelligence of high achievers and low achievers in the scholastic field, *Journal of Psychological Researches*, 6, 146-149.
- National Classification of Occupations (NCO, 1968) DGE&T, Ministry of Labour, Government of India.
- National Committee on the Status of Women in India (1975), *Status of Women in India*, New Delhi.
- National Policy of Education (1986, 1992), New Delhi: MHRD, Govt. of India.
- Neff, W.S., (1974), The world of work. In E.L. Herr (ed), *Vocational Guidance and Human Development*. Boston: Houghton Mifflin Company.
- Neff, W.S., (1965), Psychoanalytic conceptions of the meaning of work, *Psychiatry*, 28, 324-33.
- Nevill, D.D., and Super, D.E., (1988), Career maturity and commitment to work in university students, *Journal of Vocational Behaviour*, 32, 139-151.
- Nicholas, R.C., (1978), Twin studies of ability, personality, and interests, *Homo*, 29, 158-173.

- Nundy, S., and Singhal, S., (1981), Motivational context of educational achievement among the poor, *Indian Journal of Applied Psychology*, 18:1, 36-46.
- Osipow, S.H., (Ed), (1973), *Theories of Career Development*, 2nd ed., Englewood Cliffs, New Jersey, Prentice Hall.
- Osipow, S.H., (1975) The relevance of theories of career development to special groups: problems, needed data and implications. In J.S. Picou and R.E. Campbell (eds) *Career Behaviour of Special Groups*. Westerville, Ohio; Mirrill.
- Osipow, S.H., (1975) *Emerging Women: Career Analysis and Outlooks* Ohio: Charles E. Merrill.
- Osipow, S.H., (1983), *Theories of Career Development*, (3rd Ed), Englewood Cliffs, New Jersey: Prentice Hall.
- Osipow, S.H., and Fitzgerald, L.H., (1996), *Theories of Career Development* (4th Ed), Boston: Allyn and Bacon.
- Osipow, S.H., (1990), Convergence in theories of career choice and development, review and prospect, *Journal of Vocational Behaviour*, 36, 122-131.
- Parsons, F., (1909), *Choosing a Vocation* Boston: Houghton Mifflin.
- Parlikar, R.K., (1973), *An Investigation to Study Vocational Maturity of High School Students*, Unpublished Ph.D. Thesis, M.S. University of Baroda.
- Passi, B.K., (1970), Pattern of vocational aspiration of higher secondary school students in relation to sex and residential background, *Journal of Education and Psychology*, 28:2, 57-63.
- Paterson, D.G., and Others, (1941), *Minnesota Occupational Rating Scales and Counselling Profile*, Chicago: Science Research Associates.
- Patini, A., (1975), A correlational study of vocational maturity, rigidity, and self control, *Journal of Psychological Researches*, 2:3, 90-91.
- Peak, H., (1955). Attitude and motivation. In Jones, M.R. (Ed), *Nebraska Symposium on motivation*, Lincoln: University of Nebraska Press.
- Peck, R.F., and Havighurst, R.J., (1960), *The Psychology of Character Development*, New York: Wiley.
- Peluchette, J.V.E., (1993), Subjective career success: The influence of individual differences, family, and organizational variables, *Journal of Vocational Behaviour*, 43, 198-208.
- Penick, N.I., and Jepsen, D.A., (1992), Family functioning and adolescent career development, *Career Development Quarterly*, 40, 208-222.
- Pillai, G.P., (1977), *Intelligence as a Determinant of Occupational Aspirations of High School Students*, Unpublished Ph.D. Thesis, Kerala University.
- Poole, M.E., and Conney, G.H., (1985), Cultural differences in exploration of careers by adolescents, *Australian Journal of Education*, 29, 249, November.

- Poole, M.E., Sundberg, N.A., and Tyler, L.E., (1982), Adolescents' perception of family decision making and autonomy in India, Australia, and United States, *Journal of Comparative Family Studies*, Vol. 13, 349-357.
- Prakash, B., and Varghese, N.V., (1987), On education and employment linkage. In C.L. Sapra and Y. Aggarwal (eds), *Education in India: Some Critical Issues*, New Delhi. N.B.O., 110-121.
- Pratap, S., and Gupta, N.K., (1986), Sex as a factor in job satisfaction, *Indian Journal of Applied Psychology*, 23:2, 98-100.
- Pratap S., and Srivastava, S.K., (1982), A comparative study of value patterns of technical and non-technical employees, *Indian Journal of Applied Psychology*, 19:2, 51-55.
- Pratap, S., and Srivastava, S.K., (1984), A study of sex differences among college going students towards different types of values, *Journal of the Institute of Educational Research*, 8:1, 11-13.
- Prediger, D.J., (1976), A world of work map for career exploration, *The Vocational Guidance Quarterly*, 30:1.
- Psatha, S. G., (1968), Toward a theory of occupational choice for women. *Sociology and Social Research*, 52, 253-268.
- Radhakrishna, S., (1967), *The Bhagwad Gita*, London: George Allen & Unwin Ltd.
- Ram, R., (1982), Sex differences in the labour market outcomes of education. In G. Kelley, and C. Elliot (eds), *Women's Education in the third world*, Albany: State University of New York Press.
- Rao, S.N., (1977), *The Socio-Economic Status Rating Scale (SESR Scale)*, Varanasi: Rupa Psychological Centre.
- Rao, S.V.R., Ghosh, S., Joshi, G., and Acharya, S., (1994), *Women at work in India*, Vol. 2, New Delhi: Sage Publications Pvt. Ltd.
- Rastogi, K.G., (1974), Intelligence, achievement, motivation, and values system of students in different professional courses, *Teacher Education*, 9:1.
- Reddy, A.V.R., (1972), *A Study of Vocational Needs of Secondary School Pupils (Boys) in Relation to Their Occupational Choices and Their Variables*, Unpublished Ph.D. Thesis, Sri Venkateswara University.
- Reddy, A.V.R., (1976), Occupational Choice and Mental Ability, *Journal of Psychological Researches*, 20:1-3, 135-138.
- Reddy, A.V.R., (1977), The influence of economic and social status on the occupational choice of adolescent pupils, *Journal of Education and Psychology*, 35:182, 42-45.
- Reddy, A.V.R., (1978), Source of influence in the occupational choice of adolescent boys, *Psychological Studies*, 23:2, 98-100.

- Reddy, K.R., (1972), Occupational choice as an aspect of occupational information, *Research Bulletin of the Deptt. of Psychology*, Osmania University, 7, 59-63.
- Reddy, N.Y., (1980), *Values and Attitudes of Indian Youth*, Department of Psychology, Osmania University.
- Reddy, R.K., (1974), *Development of Vocational Sense Among Adolescents*, Unpublished Ph.D. Thesis, Osmania University.
- Rege, M.P., (1995), Sankhya Theory of Matter. In Jayant V. Narlikar (Ed), *Prakrti: The Integral Version*, Vol. 4, New Delhi: Indira Gandhi National Centre for Arts.
- Reich, C.A., (1971), *The Greening of America*, New York: Bantam Books.
- Reynolds, P.D., (1971), *A Primer in Theory Construction*, Indianapolis, Ind: Boobs-Merrill.
- Rezler, A., (1961), Occupational choice patterns in higher secondary schools, *Journal of Educational and Vocational Guidance Bureau*, Bombay, 8:2, 1-5.
- Rezler, A., (1967), Characteristics of high school girls choosing traditional or pioneer vocations, *Personnel and Guidance Journal*, 45:7, 659-65.
- Rezler, A., (1963), Occupational values and occupational choices of young Indians, *Guidance Review*, Vol. 1.
- Roberts, C.A., and Johansson, C.B., (1974). The inheritance of cognitive interest styles among twins, *Journal of Vocational Behaviour*, 4, 237-243.
- Roe, A., (1956), *A Psychology of Occupations*, New York: John Wiley and Sons, Inc.
- Roe, A., (1957), Early determinants of vocational choice, *Journal of Counselling Psychology*, 4, 212-217.
- Roe, A., and Klos, D., (1972), Classification of occupations. In J.M. Whiteley and A. Resnikoff (eds), *Perspectives on Vocational Development*, Washington, D.C.: American Personnel and Guidance Association.
- Roe, A., and Siegelman, H., (1963), A parent-child relations questionnaire, *Child Development*, 34, 355-369.
- Roe, A., and Lunneborg, P.W., (1990), Personality development and career choice. In D. Brown, L. Brooks, and Associates, *Career Choice and Development: Applying Contemporary Theories to Practice*, San Francisco: Jossey Bass Publishers.
- Rosen, B.C., (1961), Family structure and achievement motivation, *American Sociological Review*, 26, 574-585.
- Rosenberg, M., (1965), *Society and the Adolescent Self-Image*. Middletown: Conn.: Wesleyan University Press.
- Rosenberg, M., (1957), *Occupations and Values*, Glencoe Illinois: Free Press.

- Rothman, R.A., (1987), *Working: Sociological Perspectives*, Englewood Cliffs, New Jersey, Prentice Hall.
- Roy, B., (1978), *A Study of Some of the Social Psychological Factors Associated with Vocational Development*, Ph.D. Thesis, Indian Institute of Technology, New Delhi.
- Ryhal, P.C., (1988), A study of sex stereotypes among school and university students. *Indian Journal of Psychology*, 63: 1-4, 59-69.
- Saheb, S.J., (1980), *A study of Academic and Non-Academic Abilities in Relation to Vocational Interests of the Entrants to the +2 stage of schools in Tamil Nadu*, Ph.D. Thesis, M.K. University.
- Sahoo, P.K., (1980), Vocational preferences of tenth grade boys and girls. *Experiments in Education*, 8:2, 32-36.
- Saiyidain, K.G., (Ed) (1973), *Fourth Indian Yearbook of Education*, New Delhi: National Council of Educational Research & Training.
- Sarma, M.K., (1984), Academic achievement of school students vis-a-vis their parents education. *Indian Journal of Psychology*, 59: 1&2, 33-40.
- Sanguilliano, I., (1978), *In Her Time*, New York: Morrow.
- Sawhney, N., (1975), *Decisiveness regarding future career and adjustment of adolescent boys*, Master's Dissertation, University of Delhi.
- Saxena, J.P., (1994), Women and entrepreneurship development, *Manpower Journal*, 30:2, 45-65.
- Saxena, S., (1988), A correlational study of creativity and vocational maturity. *Indian Journal of Psychology*, 63: 1-4, 39-45.
- Schulenberg, J.E., Vondracek, F.W., and Cronter, A.C. (1984), The influence of family on vocational development, *Journal of Marriage and Family*, 129-143 (Feb.)
- Schrecker, P., (1968), The definition of work, In D.G. Zytowski (ed) *Vocational Behaviour*, New York: Holt Rinehart and Winston Inc.
- Segal U.A., (1988), Career choice correlates. An Indian perspective. *Indian Journal of Social Work*, 49:1-4, 337-348.
- Segal, U.A., (1992), Values, personality, and career choice, *Journal of Applied Social Science*, 16, 143-159.
- Seth, S., (1970), *Adjustment Problems of Female Adolescents*, Ph.D. Thesis, Lucknow University.
- Shashi Prabha, (1982), *Socio-Economic Status and Occupational Choices*, Ph.D. Thesis, Agra University.
- Shah, B., (1979), *Study of Caste Effect Upon the Choice of Courses of Studies at Graduate Level*. (Monograph) Kumaun University, Almora.
- Shah, B.C., (1978), *Placement of Arts and Home Science Students of SNDT Women's University in Vocations and Part time Jobs*, Bombay: SNDT University.

- Shah, B., and Uniyal, M.P., (1986), Determinants of educational choices at graduate level. *Indian Educational Review*, 21:1-4, 138-145.
- Sharma, K., Verma, B.P., and Swami, V.D. (1990-91), A comparative study of vocational interests of socio-economically advantaged and disadvantaged adolescents. *Journal of Education and Psychology*, 48:3-4, 118-122.
- Sharma, K.R., (1990), Educational life-style of tribal students, *The Indian Journal of Social Work*, 1:3, 457-472.
- Sharma, K., and Verma, B.P., (1991), Educational and vocational interests of tribal high school students. A study of sex differences, *Journal of Psychometry and Education*, 22:2, 101-108.
- Sharma, N., (1983), *Identity of the Adolescent Girl: Rural-Urban and Social Class Factors*. Unpublished Doctoral Dissertation, Lady Irwin College, University of Delhi.
- Sharma, R.L., (1975), *An Investigation into the Personal and Sex Interests of School-going Rural and Urban Adolescent Boys of Hadoi Region*, Ph.D. S.P. University.
- Sharma, S., (1986), *Family and Peer Group Influences on the Vocational Interests of the Gifted Adolescents Studying in Different Types of Schools*. Ph.D. Thesis. Punjab University.
- Sheehy, G., (1974), *Passages: Predictable Crises of Adult Life*, New York: Dutton.
- Shenoy, S., (1993), *Psycho-Social Correlates and Facilitators of Career Development among High School Students*, Ph.D. Thesis, Bangalore University.
- Shukla, R., (1962), Factors influencing the choice of school subjects by university students, *Prajna*, BHU Journal 144.
- Sikka, P., (1994), Technical Education in India: Requirements, a new thrust for 21st century. *University News*, New Delhi: Association of Indian Universities, Nov. 7.
- Singh, R.P., (1965), *Interest Patterns of Successful Students in Different Courses of Study at the Secondary School Stage in Uttar Pradesh (India)*. Unpublished Ph.D. Thesis, Lucknow University.
- Singh, R.R., (1985), *Self-Concept, Aspirations and Achievement Motivation of Tribal Adolescents of Rajasthan*, Ph.D. Thesis, Sudhadia University.
- Singh, R.P. and Upreti, D.C., (1975), *Pressures on Access to Secondary Education and Choice of School subjects.*, New Delhi: NCERT.
- Singh, V., (1994), Job preferences of male and female students. *Bhartiya Shiksha Shodh Patrika*, 13:1.
- Singh, R.P., (1965), *Interest Patterns of Successful Students in Different Courses of Study at the Secondary Stage in Uttar Pradesh*, Ph.D. Thesis, Lucknow University.

- Singh, S.K., (1986), *A Study of Educational Choice of Arts and Science College Students of Upper and Lower Socio-Economic Groups*, Ph.D. Thesis, Magadh University.
- Sinha, J.B.P., (1990), *Work Culture in the Indian Context*, New Delhi: Sage Publications.
- Sinha, J.C., (1978), *Role of the Family as a Unit and Vocational Interests of the Intermediate Students*. Ph.D. Thesis, Agra University.
- Sinha, D., (1984), Some recent Changes in Indian family and their implications for socialization. *Indian Journal of Social Work*, 65:3, 271-286.
- Slaney, R.B., (1987), Perspectives on Vocational Behaviour, 1986: A. Review. *Journal of Vocational Behaviour*, 31, 111-173.
- Slaney, S.M., (1989), Institutional barriers to women students in Indian Higher Education, *University News*, 27:32.
- Snow, R.E., (1973), Theory construction for research and testing. In R.W. Travers (Ed) *Second Handbook of Research on Teaching*, 'kokie, Illinois.: Rand McNally.
- Sonnenfeld, J., and Kotter, J.P., (1982). The maturation of career theory. *Human Relations*, 35, 19-46.
- Srivastava, J.P. (1994), Technical education at P.G. level, *University News*, New Delhi: Association of Indian Universities.
- Srivastava, S.S., (1972), Sex and grade differences of students in occupational choices as influenced by their father's occupational expectations *Journal of Psychological Researches*, 10:3, 133-138.
- Strong, E.K., (1943), *Vocational Interests of Men and Women*, California: Stanford University Press, Stanford.
- Sundal-Hansen, L.S., (1985), Work-family linkages: Neglected factors in career guidance across cultures. *Vocational Guidance Quarterly*, 33:3, 202-212.
- Sundberg, N.D., and Tyler, L.E., (1970), Awareness of vocational possibilities of Indian, Dutch, and American adolescents, *Journal of Cross-Cultural Psychology*, 1:3, 153-157.
- Super, D.E., (1942) *Dynamics of Vocational Adjustment*, New York: Harper.
- Super, D.E., (1957), *The Psychology of Careers*, New York: Harper.
- Super, D.E., (1955), The dimensions and measurement of vocational maturity. *Teachers College Record*, 57, 151-163.
- Super, D.E., (1972), Vocational development theory: Persons, positions, processes. In J.M. Whiteley and A. Resnikoff (eds). *Perspectives on Vocational Guidance*, Washington, D.C.: American Personnel and Guidance Association.
- Super, D.E., (1980), A life-span, life-space approach to career development, *Journal of Vocational Behaviour*, 16, 282-298.

- Super, D.E., (1982), The relative importance of work: Models and measures for meaningful data. *The Counselling Psychologist*, 10:4, 95-103.
- Super, D.E., (1983), History and development of vocational psychology: A personal perspective. In W.B. Walsh and S.H. Osipow (eds) *Handbook of Vocational Psychology*, Vol. I. Hillsdale, New Jersey: Erlbaum.
- Super, D.E., (1984), Career and life development in D. Brown and L. Brooks (Eds). *Career Choice and Development*, San Francisco: Jossey-Bass Publications.
- Super, D.E., (1988), *Adult Career Concerns Inventory*, Palo Alto California: Consulting Psychologists Press.
- Super, D.E., Crites, J.O., Hummel, R.C., Moser, H.P., Overstreet, P.L., and Warnath, C.F., (1957), *Vocational Development: A Framework for Research*. New York: Bureau of Publications Teachers College, Columbia University.
- Super, D.E., and Overstreet, P.L., (1960), *The Vocational Maturity of Ninth Grade Boys*, New York Bureau of Publications, Teachers College, Columbia University.
- Super, D.E., and Hall, D.T., (1978), Career development: Exploration and planning, *Annual Review of Psychology*, 29, 333-372.
- Super, D.E., and Nevill, D.D., (1984), Work-role salience as a determinant of career maturity in high school students. *Journal of Vocational Behaviour*, 25, 30-44.
- Super, D.E., and Nevill, D.D., (1986), *The Salience Inventory*, Palo Alto, California: Consulting Psychologists Press.
- Super, D.E. et al., (1957), *Scientific Careers and Vocational Development Theory*: New York: Bureau of Publications, Teachers College, Columbia University.
- Swami, P., (1977), *Bhagavadgita* (English) New York: Vintage Books.
- Swami, C. (1978), *The Art of Man Making*, Bombay: Central Chinmaya Mission Trust.
- Swaminathan, V.D., and Parvathi, S., (1983), Occupational aspirations of adolescent boys and girls of working and non working mothers. *Indian Journal of Applied Psychology*, 20:1, 23-28.
- Swarup, H.L., (1993), Curriculum for women's studies in undergraduate courses in universities. Paper presented at *Conference of Women's Studies Centres*, National Commission for women, New Delhi.
- Tanwar, S., and Sethi, A.S., (1986), Construction and Standardization of the Career and Family Values Scale. M.D.U. *Journal of Management Studies*, 1:1, 107-120.

- Tennyson, W.W., (1974), Career development, In Tennyson et al, *Vocational Development and Guidance*, New York: MSS Information Corporation.
- Tewari, D.D., (1975), Pressures on the choice at the high school stage. In R.P. Singh & D.C. Upreti (eds). *Pressures on Access to Secondary Education and Choice of School Subjects*, New Delhi: NCERT, 60-76.
- Thiagrajah, A.P., (1986). Occupational preference of scheduled caste students, *Indian Educational Review*, 21:1-4, 57-63.
- Thompson, A.S., Lindeman, R.H., Super, D.E., Jordaan, J.P., and Myers, R.A., (1981), *Users' Manual for the Career Development Inventory*, Palo Alto, California: Consulting Psychologists Press.
- Tiboni, V.B.A., (1976), *The Bearing of Certain Aspects of the Mother-Son Relationship upon the Son's Tendency Toward Narcotics Addiction*, Ph.D. Thesis, School of Education, Catholic University of America.
- Tiedeman, D.V., and O'Hara, R.P., (1963), *Career Development, Choice and Adjustment*: New York: College Entrance Examination Board.
- Tinsley, D.J., (1993), Special issue on the theory of work adjustment, *Journal of Vocational Behaviour*, 43, 1-4.
- Tinsley, H.E.A. and Hersacker, H., (1984), Vocational behaviour and Career development, 1983: A review, *Journal of Vocational Behaviour*, 25, 139-190.
- Tolbert, E.L., (1974), *Counselling for Career Development*, Boston: Houghton Mifflin.
- Tolman, E.L., (1959), Principles of Purposive Behaviour, In S. Koch (ed). *Psychology: A Study of Science*, Vol. 2. New York: McGraw Hill.
- Tomar, J.P.S., (1985), *A Study of Occupational Interest Trends of Adolescents and Their Relation with Prevalent Job Trends of Employment in Eastern Uttar Pradesh*. Ph.D. Thesis, Avadh University.
- Toong, S., (1982), *Vocational Aspiration in Relation to Creativity, Personality, Achievement and Socio-Economic Status of High School Students*, Unpublished Ph.D. Thesis, Punjab University.
- Tulsi, P.K., (1983), *Differential Effect of Career Guidance Strategies on Vocational Maturity Patterns in Relation to Sex, Intelligence, and Need Achievement*, Ph.D., Thesis, Punjab University.
- Tyler, L.E., (1965), *The Psychology of Human Differences* (3rd ed). New York: Appleton-century-crofts.
- Tyron, W.W., (1979), The test-trait fallacy, *American Psychologist*, 34, 402-406.
- UNESCO (1981), *Women and Development: Indicators of their Changing Role*, New York: UNESCO.
- UNESCO (1982), *World Guide to Higher Education* (See Ed). Powder Publication Consortium, UNESCO Press.

- United States Department of Labour, (1940), *Dictionary of Occupational Titles*, Washington, D.C.: U.S. Government Printing Office.
- United States Department of labour (1949), *Occupational Outlook Handbook*, Washington, D.C.: U.S. Government Printing Office.
- UNO, *International Industrial Classification of All Economic Activities*, Statistical Papers, Series No. 4:2, New York.
- Uplankar, A.T., (1982), Social background and occupational aspirations of college students: A case study of scheduled castes vis-a-vis non-scheduled caste students in higher education, *Journal of Higher Education*, 8:1, 63-63.
- U.S. Department of Labour, (1977), *Dictionary of Occupational Titles (4th ed)*. Washington D.C.: U.S. government Printing Office.
- Vernon, P.E., (1950), *The Structure of Human Abilities*, London: Methuen.
- Vaidyanathan, A., (1994), Employment situation: Some emerging Perspectives.. *Economic and Political Weekly*, Dec., 10, 3147-3156.
- Vaidyanathan, A., (1990), *Cottage and Small Industries in India*, Sir Purushothamdas Thakurdas Lecture 1990, Indian Institute of Bankers, Bombay.
- Vandergoot, D., and Engelkes, J.R., (1977), An application of the theory of work adjustment to vocational counselling, *Vocational Guidance Quarterly*, 26, 45-52.
- Vallant, G.E. (1977), *Adaptation to Life*, Boston: Little Brown.
- Varghese, N.V., (1988), *Education-Employment Relations: A Case Study of Organized Sector in India*, Occasional Paper no. 76, Paris: International Institute of Educational Planning.
- Varghese, N.V., (1989), Higher education and employment in India: Some evidences and their implications, *Perspectives in Education*, 5:2, 71-80
- Varma, B.P., Das, R., and Swain, B.C., (1993), Values of adolescent students as a function of their sex and rural-urban inhabitation (Research notes) *Indian Educational Review*, January, 71-79.
- Varma, V.P.(1990), Budhist Philosophy of Karma. In Kewal Krishna Mittal (Ed) *Perspectives on Karma and Rebirth*, Delhi: Department of Budhist Studies.
- Varshney, H.K. (1990), Education and employment planning for young women, *The Indian Journal of Labour Economics*, 33:3, 225-234.
- Vasantha, A., (1971), Work values and occupational information: A field study, *Journal of Educational and Vocational Guidance*. Dec., 33-42.
- Vasantha, A., (1977), A socio-economic study of work values. *Journal of Psychological Researches*, 21:2, 119-127.
- Veena, D.R., (1987), *Growth, Productivity, and Workforce in Indian Economy*, New Delhi: Ashish Publishing House.

- Veeraraghavan, V., (1985). The effect of schooling on educational achievement and vocational plans of students. *Journal of Psychological Researches*, 29:1, 34-40.
- Vetter, L., (1973). Career Counselling for Women. *Counselling Psychologist*, 4, 54-67.
- Vijaylakshmi, G., (1984). *Sex-Role Perception and Occupational Choice*, Delhi: Mittal publications.
- Visaria, P., and Minhas B.S., (1991). Evolving an employment policy for the 90's. *Economic and Political Weekly*, 26:15.
- Vohra, H.B., (1977). *An investigation of the relationship among intelligence, aptitude, personality, academic achievement and vocational choice of polytechnic students*, Ph.D. Thesis, Punjab University.
- Vondraceck, F.W., Lerner, M., and Schulenberg, J.E., (1986). *Career Development: A life-span Developmental Approach*, Hillsdale, N.J.: Erlbaum.
- Vondraceck, F.W., and Schulenberg, J.E., (1986). Career development in adolescence: Some conceptual and intervention issues. *The Vocational Guidance Quarterly*, June, 247-253.
- Vondraceck, F.W., Hostetler, M., Schulenberg, J.E., and Shimizu, K., (1990). Dimensions of Career indecision. *Journal of Counselling Psychology*, 37:1, 98-106.
- Vondraceck, F.W., (1992). The construct of vocational identity and its use in career theory and research, *Career Development Quarterly*, 41, 130-144.
- Vroom, V.H., (1964). *Work and Motivation*, New York: John Wiley & Sons Inc.
- Wagman, M., (1966) Interests and Values of career and home-making-oriented women. *Personnel and Guidance Journal*, 44, 794-801.
- Wali, M.N., (1975), An inquiry into pressures on choice of school subjects in R.P. Singh and D.C. Upreti (eds) *Pressures on Access to Secondary Education and Choice of School Subjects*, New Delhi: NCERT.
- Walsh, F., (1982). *Normal Family Processes*, New York: Guilford Press.
- Walsh, W.B., and Osipow, S.H. (Eds) (1983a). *Handbook of Vocational Psychology, Vol. 1. Foundations*, Hillsdale, New Jersey: Lawrence Erlbaum Associates, Publishers.
- Walsh, W.B., and Osipow, S.H. (Eds), (1982b). *Handbook of Vocational Psychology, Vol. 2 Applications*, Hillsdale, New Jersey: Lawrence Erlbaum Associates, Publishers.
- Walsh, W.B., and Osipow, S.H. (eds), (1994). *Career Counselling for Women*, Hillsdale, N.J.: Erlbaum
- Warnath, C.P., (1978), Vocational theories: Directions to nowhere, *Personnel and Guidance Journal*, 53, 422-429.

- Warner, W.L., Meeker, M., and Eells, K., (1949), *Social Class in America*, Chicago: Science Research Associates.
- Walkins, C.E., (1993), Psychodynamic career assessment: An Adlerian perspective, *Journal of Career Assessment*, 1, 355-374.
- Weisinger, R., (1963), *The Hindu Adolescent Girl: Psychological Study of Hindu Girls*, Bombay: Ph.D. Thesis. Bombay University.
- Wernimont, P.F., (1966), Herzberg's Two-Factor Theory: Intrinsic and extrinsic factors in job satisfaction, *Journal of Applied Psychology*, 50:1, 41-50.
- Westbrook, B.W., (ed) (1970), *The Cognitive Vocational Maturity Test*, Unpublished test, Department of Psychology, North Carolina State University, Centre for Occupational Education.
- Westbrook, B.W., (1982), The construct validation of career maturity measures, In J.D. Krumholz and D.A. Hamel (eds) *Assessing Career Development*, Mountain View, Calif: Mayfield.
- Westbrook, B.W., and Parry-Hill, J.W. Jr., (1973), *Cognitive Vocational Maturity Inventory*, Raleigh, N.C.: Centre for Occupational Education, North Carolina State University.
- Williamson, E.G., (1939), *How to Counsel Students*, New York: McGraw Hill.
- Williamson, E.G., (1965), *Vocational Counselling*, New York: McGraw Hill.
- Williamson, E.G. (1972), *Trait and Factor Theory and Individual Differences Theory of Counselling*, New York: McGraw Hill.
- Yadav, G.K., (1979), *A Study of Motives for the Vocational Preferences of Adolescents*, Ph.D. Thesis, Agra University.
- Yadav, R.K., (1983), A Study of motives for the vocational preferences of adolescents (Ph.D. Thesis Abstract), *Indian Educational Review*, Jan., 78-84.
- Young, R.A., and Friesen, J., (1992), The intentions of parents in influencing the career development of their children, *Career Development Quarterly*, 40, 198-207.
- Zaccaria, J.S., (1970), *Theories of Occupational Choice and Vocational Development*, Boston: Houghton Mifflin.
- Zytowski, D.G. (1968), *Vocational Behaviour*, New York: Holt Rinehart and Winston Inc.
- Zytowski, D.G. (1969), Towards a theory of career development of women, *Personnel and Guidance Journal*, 47, 66-74.
- Zytowski, D.G. (1986), Comparison of Roe's and Holland's Occupational Classifications: Diverse ways of Knowing, *Journal of Counselling Psychology*, 33, 479-481.

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